

S&T ENTERPRISES,)	AGBCA No. 2001-159-1
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Appellant)	
)	
Appearing for the Appellant:)	
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Thomas Grajkowski, pro se)	
P. O. Box 7997)	
Bonney Lake, Washington 98390)	
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Appearing for the Government:)	
)	
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DECISION OF THE BOARD OF CONTRACT APPEALS

June 11, 2003

Before POLLACK, VERGILIO and WESTBROOK, Administrative Judges.

Opinion for the Board by Administrative Judge WESTBROOK. Separate opinions concurring in part and dissenting in part by Administrative Judges POLLACK and VERGILIO.

This appeal arises out of Contract No. 50-04N7-0-24, Squaw Lake Dam Spillway Repair (the contract), between the U. S. Forest Service, an agency of the U. S. Department of Agriculture (Government or FS), and S&T Enterprises (Appellant or S&T) of Bonney Lake, Washington. Squaw Lake is located in the Rogue River National Forest, Applegate Ranger District, Jackson County, Oregon.

The Board has jurisdiction to decide the appeal under the Contract Disputes Act of 1978 (CDA), 41 U.S.C. §§ 601-613, as amended.

Appellant is a sole proprietorship¹. The principal is Thomas Grajkowski. The appeal is from the Contracting Officer's (CO's) failure to issue a decision on his claims. The appeal and initial complaint were filed by Mr. Grajkowski acting *pro se*. He subsequently retained counsel who filed an amended complaint. A hearing was held in Portland, Oregon, on June 27, 2002. Mr. Grajkowski was the sole witness for Appellant. Mr. Peter Jones, the FS inspector, was the only Government witness. The CO was Ms. Eileen Norththrop, who did not testify. The Government attempted to introduce a declaration of the CO. Appellant's counsel objected.

At the close of the hearing, the Presiding Judge declared the record closed with one specific exception. Mr. Grajkowski had contended that S&T had not been paid all funds undisputedly due. The record was left open for submission of bank records or other documents which would shed light on that question alone. The judge also set a schedule for the submission of post-hearing briefs. Appellant's counsel filed an opening brief. Thereafter, Appellant dismissed his counsel and asked leave to file a supplemental brief which was granted. He filed a supplemental brief, attaching additional documents related to quantum but unrelated to the sole issue for which the record remained open. Those documents are not a part of the record. The Government then filed its opening brief and the parties have replied to each other's briefs.

FINDINGS OF FACT

The Contract

1. Effective June 27, 2000, the FS awarded Appellant the contract to repair the Squaw Lake Dam Spillway in the original contract amount of \$42,115. (Appeal File (AF) 7.) Section C.2 of the contract described the work as follows:

Construction/reconstruction of dam embankment and spillway, removal of damaged concrete, removal of woody debris, grubbing and removal of tree stumps and rootmass, removal of rocks embedded in concrete, excavation of loose/weathered rock and irregularities, high pressure washing of spillway rock slopes, placement of excess excavation, installation of gabion mattresses for embankment protection, removal of damaged gabion mattress, grass seed and fertilize, installation of grouted rock anchors, placement of steel fiber reinforced silica fume shotcrete.

¹ Appellant is identified on the bid as a sole proprietorship. Appellant's former attorney in his opening statement identifies Appellant as a Washington limited liability company. We use the identification provided to the Government with the bid.

(AF 18.)

2. Section B, Schedule of Items contained 9 bid items. Appellant provided its bid as follows:

Item Number	Description	Method of Meas.	Pay Unit	Est. Quantity	Unit Price	Amount Bid
201 (03)	Clearing and grubbing, slash treatment methods for tops and limbs 11, logs 8, and stumps 11, utilization of timber 4,	LSQ	LS	1	\$1,500.00	\$1,500.00
203 (22)	Unsuitable rock excavation	LSQ	LS	1	\$1,500.00	\$1,500.00
253 (01)	Gabion, galvanized-or aluminized-coated	DQ	SM	50	\$85.00	\$4,250.00
554 (04)	Reinforcing steel, rock anchors	AQ	EA	250	\$55.00	\$13,750.00
601 (01)	Mobilization	LSQ	LS	1	\$8,500.00	\$8,500.00
602 (03)	Concrete, method A	AQ	CM	7.5	\$350.00	\$2,625.00
603A (06)	Furnish and place water tight gasket and clamp	LSQ	LS	1	\$2,000.00	\$2,000.00
03771-1	Steel fiber reinforced silica fume shotcrete	AQ	CM	34	\$235.00	\$7,990.00
TOTAL QUOTE						\$42,115.00

(See AF 10.)

(LSQ = lump sum quantity; DQ = design quantity; AQ = actual quantity; LS = lump sum; SM = square meter; CM = cubic meter)

3. The contract incorporated, by reference, a number of Federal Acquisition Regulation (FAR) clauses including 52.211-18 Variation in Estimated Quantity (APR 1984) (VEQ) and 52.243-5, Changes and Changed Conditions (APR 1984). The VEQ clause provides for an equitable adjustment in the contract price where the quantity of a unit-priced item is an estimated quantity and the actual quantity of the unit-priced item varies more than 15% above or below the estimated quantity. The equitable adjustment is to be based upon any increase or decrease in costs due solely to the variation 115% or below 85% of the estimated quantity. (AF 31.)

4. Clause F.1 of the contract required the contractor to commence work within 10 calendar days after receipt of notice to proceed (NTP) and to complete entire work ready for use not later than 60 days after receipt of NTP (AF 22). The FS issued NTP by a letter dated July 12, 2000. Appellant acknowledged receipt thereof on the same day. The NTP provided that time on the contract would start at the beginning of business on July 17, 2000. (AF 119.)

5. Mr. Grajkowski prepared Appellant's bid. He had not performed a shotcrete project or a spillway project previously (Transcript (Tr.) 37). He did not make a site visit prior to submitting his bid (Tr. 47). The \$235 unit price Appellant bid for shotcrete, item number 03371-1, did not include all costs of applying shotcrete. The cost of the nozzleman who applied shotcrete, some soil testing costs, the compressor, pump truck, and possibly other equipment costs, and helpers' costs were omitted. His bid included the cost for the nozzleman at \$100 a cubic meter (CM) in the mobilization, clearing and grubbing bid item. His testimony was that \$3,200 or \$3,400 of his bid for that item was for the nozzleman's cost for the estimated quantity of cubic meters of shotcrete.¹ Even that \$100 per unit did not include all costs from Superior Pools, the entity supplying the nozzleman. Mr. Grajkowski testified that he thought many of those costs came with the nozzleman but "I was wrong." (AF 241; Tr. 76-77.) Appellant's bid was about 10% lower than the Government Estimate (GE) (AF 4). By an undated letter with a fax date of June 21, 2000, Appellant provided a one sentence bid confirmation stating "our quote remains the same" (AF 2). This appears to be in response to a letter from the CO in which she provided a clarification of specification subsection 3.1.2.2, Delivery Equipment under Specification Shotcrete, to make sure bidders understood that shotcrete could be batched and mixed onsite (AF 1) and not to the fact that his bid was below the GE by 10%.

Post-Award Matters

¹ Throughout this testimony Mr. Grajkowski refers to yards. Appellant's counsel explained that he and Mr. Grajkowski were using the term "yard" interchangeably with the term "cubic meter." (Tr. 15.)

6. Mr. Grajkowski visited the site after award. Mr. Jones was also present. There is conflicting testimony between Mr. Grajkowski and Mr. Jones as to whether Mr. Jones not only confirmed his estimate of 34 CM but stated that 34 CM of shotcrete would have to do. Mr. Grajkowski testified that Mr. Jones measured twice to reach this amount and that at this post-award site visit Mr. Jones again measured and said that 34 CM “would fit” (Tr. 10). He also quoted Mr. Jones as saying the 34 CM would do it and “we’re going to make it stretch” (Tr. 42). Still on direct examination, he said:

I only dealt with Mr. Jones and told him, my nozzleman says it’s going to take more shotcrete. He said we’re - - Mr. Jones said we’re going to do it with what the contract spells out because they don’t have the funds, and they wanted this job done at a certain dollar amount or less.

(Tr. 49.)

On cross-examination, Mr. Jones denied telling Mr. Grajkowski “we’ll make it with the 34 cubic meters.” He testified that he only said that 34 CM was the preconstruction estimate. (Tr. 144.) On rebuttal Mr. Grajkowski testified to the following:

Q Did Mr. Jones give you any warnings or limitations with respect to the use of his estimate?

A He told me he measured it twice, and it was 34 cubic meters was going to be used. When we went to the job site, he said it was going to be 34 meters that you were going to use. He doesn’t want to hear anything else. That’s all the money they have for the job, When my shotcrete guy come up there, he told him its going to be upwards of close to 60. He was dismayed and said no, it’s not, we’re going to make it. And I said well, I’m not able to do the - - any closer estimating than you can do because I’m not - - you’re an engineer. I’m not. So I took my - - at that time I took my shotcrete man’s estimation and that wasn’t even enough

(Tr. 146.)

The Preaward Checklist/Responsibility Determination indicates that Appellant’s bid was about 10% under the Government Estimate and that the funds approval was also less than the Government Estimate (AF 4). Mr. Grajkowski was a forthright witness. In several instances, he admitted shortcomings in his bid preparation, contract administration and performance (Tr. 33, 44, 77, 85). He did not accuse the Government of bad faith. He testified that Mr. Jones did a good job as a professional and was not negligent in estimating the quantities of shotcrete anticipated to be applied (AF 232; Tr. 47).

For these reasons, I accept, as true, Mr. Grajkowski’s testimony that Mr. Jones was insistent that the project could be built using the estimated quantity of 34 CM for the basic contract work.

Performance

7. Appellant commenced work on the site July 24, 2000 (AF 147-48). The contract called for an estimated 7.5 cubic meters of 3500 psi concrete to be placed under and to the north side of the culvert through the crest of the dam (AF 10, 87, 88, 90). On July 27, 2000, the FS Inspector, Peter Jones, gave Appellant work order #1 providing, in pertinent part, that he replace defective concrete in an old concrete apron with Item 602 (03), Concrete with 6 X 6 #10 welded wire fabric, including forming as required, 150 mm maximum thickness (AF 201).

8. On July 28, when the nozzleman viewed the site, he estimated that it would take up to 60 cubic yards of shotcrete on the high side. Although Mr. Grajkowski refers to this estimate as 60 CM in testimony it is apparent from context that in this case he actually meant 60 cubic yards (or approximately 45.8 CM). While 34 CM could be placed in one day, it would take two days for the amount estimated by the nozzleman (Tr. 19, 49). The contract daily diary for July 28 confirms the nozzleman's site visit but makes no mention of the discussion of estimated quantities of shotcrete (AF 151).

9. Later the Government decided to construct the entire spillway of shotcrete. This decision affected both areas just described as to be constructed of concrete. The change of contract work was in the area shown on sheet six of the contract drawings where an estimated 7.5 CM of concrete 602(03) was to be installed (AF 90). The added work was the new work to replace the existing concrete apron. Appellant described these changes in a letter received by the FS on August 14, 2000. (AF 128-29.) Work order #3, dated August 4, 2000, formally deleted the requirement for using concrete and welded wire fabric to replace defective concrete and instead directed use of item 0337-1, steel fiber reinforced silica fume shotcrete for the same purpose (AF 207).

10. Modification No. 4 provided for payment for these 13 CM of shotcrete at the bid price of \$235 per CM of shotcrete. Appellant signed the modification. However, on page three of the modification, in the space provided for a contractor to state any exceptions to the Contractor's Statement of Release, he wrote the following:

(1) The unit price of shotcrete which is considerably more than my actual listed quote of [space left blank] per cubic meter in the original contract. At this time I do not know what the cost is per meter. I won't know til I get all the invoices from LTM, the nozzle man, the pump man and the test labs.

(2) When we had a change order to replace the regular concrete with shotcrete. It will take less shotcrete to replace the regular concrete thereby I would lose a portion of profit and the extra shotcrete not needed to replace the regular concrete would be used on the spillway causing my contracted amounts to increase at the quoted price which is costing me out of my pocket.

Note: It does make perfect sense to shotcrete the entire spillway - that gives a uniform strength to the entire project being concreted.

It is also correct to complete the entire job even if more quantities are required than contracted. That will make sure there are no flaws in the shotcrete pour.

Thomas Grajkowski

(AF 103.)

11. The record contains an unsigned Standard Form 30, Amendment of Solicitation/Modification of Contract labeled (and referred to by both parties) as Modification No. 5. On its face, it deletes 13 CM of shotcrete at the unit price of \$235 and adds the same quantities at \$492.13, for an extended amount of \$6,397.69 (AF 298-99). These are the quantities added to the contract by Modification No. 4 (Tr. 111). Mr. Jones, the sole Government witness, testified that he calculated the \$492.13 rate by using prices taken from Appellant's April 13, 2001 letter and adding a 15% markup for profit (AF 303-04; Tr. 142-43).

12. The CO failed to initiate a contract modification reflecting the change from concrete (originally estimated at 7.5 CM) to shotcrete for the area under and to the north side of the culvert through the crest of the dam (Tr. 70-73). The work that had been estimated to take 7.5 CM of concrete was performed using 2.5 CM of shotcrete. The FS paid Appellant for this work at \$350, the unit price Appellant bid for concrete. (Tr. 115-16.) Mr. Grajkowski testified that he performed the shotcrete work at a loss and that had he placed concrete at \$350 per CM, he would have made a profit on that work (Tr. 87-89). His October 10, 2000 claim letter states that the per CM profit in his bid price for concrete was \$210 (AF 229).

13. Shotcrete application began on September 26, 2000 and continued September 27. Eight batches totaling approximately 56 CM were applied on those two days. The amount applied was all the shotcrete that Appellant had ordered to be delivered to the site and was 22 CM in excess of the original estimated quantity (AF 183-90; Tr. 16-19), but 5.3 CM less than the sum of the nozzleman's estimate and the added shotcrete work (45.8 + 13 + 2.5). At the end of the second day, there were sites on the project which had not received the planned shotcrete coverage (AF 190). Appellant was unable to have additional quantities delivered to the site because his supplier had no more. It would have taken another couple of days to get additional quantities of shotcrete shipped in. By that time, the nozzleman, who had previously scheduled a hunting trip, would have been unavailable. (Tr. 21-22.) Appellant therefore left the job site but left an employee there to water the spillway (Tr. 20, 22-23). Once the shotcrete was in place, it was necessary to use a water sprinkler system to cure the material slowly for seven days while it hardened (AF 191; Tr. 14).

14. In testimony, each party's witness used 67.75 CM as the total amount of shotcrete applied on the job for purposes other than test panels (Tr. 14, 17, 101). The witnesses were also in agreement that 56 CM were applied on the first two days, September 26 and 27 (Tr. 19, 102). The estimated

quantity of shotcrete to be applied was 34 CM (AF 10). The estimated quantity of 34 CM plus 15% calculates to 39.1 CM. By the end of the second day, Appellant had applied 56 CM or 165% of the estimated quantity. When the contractor returned to the site October 19, he applied two additional batches of shotcrete (11.5 CM according to Mr. Grajkowski and 11.75 CM according to Mr. Jones) (AF 196; Tr. 18, 59). Two or three of these 11.5 to 11.75 CM of shotcrete were still on the truck when shotcrete was applied on the spillway slopes which had remained to be covered when work recommenced that day. Those remaining 2-3 CM were used to repair defects existing in the work performed on September 26 and September 27 and were not paid by the FS (Tr. 115). According to the contract daily diary for October 19, 2000, Appellant agreed to this use of the remaining shotcrete. (AF 196.) There was some testimony from Appellant that the defects could have been remedied by injection of epoxy (Tr. 33-35). However, there is no evidence that Appellant objected to that use of the excess shotcrete at the time or that the Government ordered Appellant's crew to perform this work over objections of Appellant. Appellant admits the defects (Tr. 33) and his letters of March 19, April 5 and April 13, 2001 do not express any disagreement with use of the shotcrete to remedy them (AF 231-48). The use of the remaining shotcrete for shrinkage crack repair was successful (Tr. 103-04). Appellant then undertook a second seven-day cure (AF 198-99). Because the three days of pouring were discontinuous, a second seven-day cure was necessary. Thus, Appellant provided a total of 14 days of curing instead of seven. (Tr. 14-16.)

15. Appellant objected to the admission of an affidavit by the CO. When asked to respond to that objection, the FS opted not to respond to the objection but to elicit the testimony from Mr. Jones. He testified that the FS had paid Appellant for shotcrete as follows: (1) 2.5 CM at the concrete rate of \$350 per CM; (2) 2.0 not paid for as it was used to correct defects; (3) 13 CM applied as a result of the work called Modification No. 5 at the rate of \$492.13 and (4) 50.25 CM at the bid rate of \$235. (Tr. 102-05.) Mr. Grajkowski on the other hand testified that he had not been paid for 22 CM of the shotcrete he applied. He provided his calculation as follows:

Originally I was supposed to put 34 cubic meters in place. Amendment number 4 added another 13 cubic meters to that to replace a concrete width. Now I'm ending up with 47 cubic meters, but on amendment 5 they subtracted 13 cubic meters because of a price increase they gave me and added the 13 - same 13 cubic meters which still keeps my total at 47 cubic meters that was accounted for in the total paid I got so far. That still leaves me 20 to 22 cubic meters I haven't got paid for yet.

(Tr. 59-60.)

16. Payments to Appellant are recorded in five Progress Payment Reports (PPR). The first PPR reflected the addition of \$1,550 of work unrelated to this appeal to the bid price of \$42,115 for a new contract price of \$43,665. Payment of \$17,465 was made pursuant to PPR #1. No payments were made for shotcrete. (AF 219.) The second PPR showed an additional quantity of 13 CM of shotcrete at \$235, which added to the estimated quantity of 34 CM, produced a revised quantity of 47 CM of shotcrete. Of that, the PPR showed 39 CM as earned to date. Thus under PPR #2 Appellant was paid for 39 CM at the rate of \$235. PPR #2 also showed payment pursuant to bid item 602(03), concrete, method A, for 2.5 units at \$350 per unit for a total of \$875. The \$9,165 and

the \$875 were included in the \$42,665 shown as earned to date. As \$17,465 had been paid under PPR #1, Appellant was paid \$25,200 pursuant to PPR #2. (AF 222.)

17. PPR #3 showed 24.20 units of shotcrete at \$235 each earned during the period for an extended total of \$5,687. This made a total earned to date of \$14,852 for shotcrete. This PPR showed a new contract subtotal of \$53,080 of which \$42,665 had previously been paid and \$1,000 was being withheld for shrinkage crack repair. (AF 225.) With the 39 CM previously paid, Appellant had been paid for 63.2 CM of shotcrete. PPR #4 reveals payment to Appellant of \$1,000 releasing the amount previously retained for shrinkage crack repair (Attachment to October 17, 2002 from Government counsel to Appellant, copy to the Board).

18. PPR #5 reflects the deletion of 13 CM of shotcrete at \$235 per unit totaling \$3,055 and the addition of 13 CM of shotcrete at \$492.13 totaling \$6,397.69. These amounts are consistent with Modification No. 5 adjusting the price paid for the shotcrete added to the project to replace defective existing concrete. (AF 298-300.) In summary, Appellant was paid for 2.5 CM of shotcrete at \$350 per CM (concrete price) (PPR #2); 13 CM of shotcrete at \$492.13 (PPR #5) and 50.2 CM of shotcrete at the bid price of \$235 (PPR #2 and #3).

19. In correspondence and testimony, Mr. Grajkowski has expressed his view that when the actual quantities for a bid item exceed the estimated quantities plus 15%, the contractor and the Government negotiate a new price for the additional amounts needed to complete the project. According to his understanding, the negotiated price should include cost of materials, labor, equipment to apply material, overhead, profit and risk. (AF 242-43; Tr. 39-42, 82.) Mr. Grajkowski formed some of his opinions in this regard by making telephone calls and posing questions to other COs when he felt the CO on this project was not responsive to his questions (AF 40-42). The CO visited the project site only once (Tr. 142). Mr. Grajkowski testified that he was "chewed out" by the CO for discussing the contract with the inspector and the CO's Representative (COR) (Tr. 43). His testimony about lack of communication with the CO, who did not testify, is unrebutted in the record.

The Quantum Claims

20. Appellant presents his claim in a letter dated October 10, 2000 (prior to the third day of shotcrete application) and three subsequent letters (AF 228-48). The CO did not issue a final decision; however, the record contains two interim letters in response to Appellant's claim letters (AF 249-52). Appellant claimed the following:

(1) For 18.9 cubic meters of shotcrete (over estimated quantity of 34

CM plus 15% or 39.1 CM)

18.9 CM @ \$228 per CM	4,309.20
Unloading 18.9 CM shotcrete	120.00
Nozzleman @ \$100 per yard (25 yards)	2,500.00
Shotcrete pump and operator	875.00
Boom truck (insured)	450.00
Air compressor and fuel	<u>92.50</u>
Sub-total	8,346.70
Overhead @ 10%	834.70
Principal's time and profit @ 20%	1,669.40
Risk Factor	<u>5,008.20</u>
Total Costs of Shotcrete Placed Day Two	15,829.00

(2) For 11.5 cubic meter of shotcrete placed three weeks after the first two days of shotcrete placement

11.5 CM shotcrete @ \$228 per CM	2,622.00
3-1/2 hours unloading time	200.00
Nozzleman @ \$100 per yard (15.25 yards)	1,525.00
Nozzleman' extra two men	690.00
Concrete pump and operator	875.00
Scaffolding in lieu of boom truck (insured)	450.00
Air compressor and fuel	185.00
7 day water pump and fuel for cure time	610.00
Labor for seven days to operate pump	<u>2,450.00</u>
Subtotal	<u>9,607.00</u>
Overhead @ 10%	960.00
Principal's time and profit @ 20%	1,921.40
Risk Factor @ 50% ¹	<u>4,803.50</u>
	\$17,292.90

(AF 243-45.)

¹ Appellant's last claim contains a note that this factor "does not include 7-day cure time costs (AF 245)." We are uncertain what Appellant means by this statement. The amount Appellant claims for "risk factor" (\$4,803.50) is 50% of the claimed \$9,607 which includes water pump and fuel costs as well as labor for the cure period.

Appellant also made claim for several additional items, including:

(3) Profit on 13.8 meters of concrete @ \$210 per CM	2,898.00
(4) 2 days use of air compressor and drill to install additional rock bolts @ \$195 per day	390.00 ¹
(5) 1 day use of generator and roto hammer to install extra 3/4 rebar anchors	56.00
(6) Additional times to wash spillway due to flaking rock.	750.00 ²
(7) Furnishing and installing larger pipe bands than specified.	379.00 ³
(8) Clean up of area where inspector directed	

¹ The CO responded that costs for rock bolts and anchors were included in Modification Nos. 1 and 3. Appellant presented no evidence nor argument regarding these claims. They are deemed withdrawn.

² Appellant withdrew this claim item after review of CO's response (AF 247).

³ The CO agreed that this item was a change and that the claimed costs were reasonable (AF 252). We cannot ascertain from the record whether Appellant has been paid for this extra work. If this is the work described in Modification No. 5 as "furnish and place water tight gasket and clamps," it appears to have been paid. Otherwise, it appears to be due and owing to Appellant.

washing of concrete trucks	125.00
(9) Drilling 8 seep holes @ \$25 each	200.00

(AF 234-35.)

21. Regarding the claim for seep holes, the CO’s letter of March 28, 2001 directed Appellant’s attention to Sheet five, note three, of the contract drawings requiring the contractor to drill 25 - 50 mm drain holes through shotcrete as marked on the ground by the CO (AF 89, 252).

22. Appellant claims that he cleaned “concrete”¹ trucks at a location dictated by the inspector and COR but was later told both to change the location for cleaning and to pick up steel fibers from the original site. He claims \$125 for labor and magnetic sweep to clean the area where the Government originally directed him to wash the trucks. (AF 235.) The CO’s March 28, 2001 letter does not directly respond to the allegation that the original site was directed by the Government. She refers only to paragraph H.5, Landscape Preservation, of the contract prohibiting wash water or waste from concrete or drilling operations from entering live streams and H.9, Clean Up, requiring clean up of waste materials. (AF 25-26, 252.) Neither witness testified regarding this matter at the hearing.

23. The Board’s pre-trial Order on Proof of Costs directed Appellant to provide a statement of costs accompanied by calculations and underlying documentation. Appellant, through counsel, submitted the following:

Change order #5 proposed to pay Appellant \$6,397.13 which is \$492.13 per cubic yard. The attached invoices that show the actual cost of the October delivery to be as follows:

Superior Pools	2,140.00
	1,140.00
Soil Testing	500.52
	94.60
Outlaw Concrete	438.75
LTM	2,821.65
	300.00
United rental	855.92
Gas	99.00
Subtotal	8,390.44
15% profit	1,258.57

¹ No concrete was used on the project. Presumably these trucks were used to haul shotcrete.

Contractor 7 days	
@\$400 per day	2,800.00
7 days labor	2,450.00
7 days water pump	<u>610.00</u>
Total Cost	15,509.01
Amount Paid	<u>-6,397.69</u>
Total deficiency	9,111.32

24. After Appellant's attorney filed a brief, Appellant discharged him and asked leave to file a supplemental brief *pro se*. Leave was granted. In the supplemental brief, Appellant provided the following "list of costs requested for equitable adjustment:"

Additional costs for Modification No. 4 which contractor did not negotiate	1,036.69
Penalizing contractor by withholding 2.5 CM of shotcrete	1,429.70
If court rules I am entitled to actual costs due to changes for 9.25 CM above the 115% mark	3,116.14
Statement of costs in Michael Redden's closing argument	15,559.01
Adding 5% more profit	419.52
Let Court decide risk factor	
High pressure washing change	985.00
Redirection of clean-up area	89.00
Seep holes	<u>438.00</u>
Total amount of claim	23,073.06

Also asking for risk factor, attorney fees and interest to be determined by the court.

DISCUSSION

ADDITIONAL QUANTITIES OF SHOTCRETE

Overrun

Appellant contends that while he was required to place 115% of the estimated quantity of shotcrete at his bid price of \$235, once he had placed that amount which calculates to 39.1 CM (34 CM x 115%), he was then entitled to the actual costs for all additional units. I disagree.

The VEQ clause provides that the equitable adjustment for quantities in excess of 115% is to be based on any increase in costs due solely to the variation above 115%. The Court of Appeals for the Federal Circuit, the decisions of which are binding on this Board, has made clear that this language is to be interpreted according to its plain meaning. Foley Co. v. United States, 11 Fed.3d 1032 (Fed. Cir. 1993) In Foley, the Government sought a downward adjustment for quantities of sludge removed in excess of 115% of the estimated quantities. The Government proposed the establishment of a new unit price for the overrun amounts by an equitable adjustment of the contractor's unit profit, even where the contractor's unit costs remained constant. The court held that the Government's interpretation clearly contravened the plain meaning of the VEQ clause, the express language of which precluded an equitable adjustment based on anything other than the contractor's costs.

As I understand the clause and Foley, to be entitled to an adjustment under the clause, a contractor must show not only that the overrun quantities (those in excess of 115%) were more costly to place, it must also show that the increase in costs was due solely to the fact of the overrun. Appellant here failed to demonstrate that increased costs, if any, resulted only from the fact that there were increased quantities. The VEQ clause is intended to provide an adjustment in cases where there are economies or diseconomies of scale. Additional quantities are more likely to result in an economy of scale rather than a diseconomy, i.e., unit costs would go down rather than up. A shortfall of quantities is more likely to result in a diseconomy of scale, i.e., unit costs would go up rather than down. The opposites of these situations are not impossible but are far less likely. I see nothing in the record before us here proving that the additional CM of shotcrete over the first 39.1 CM were more costly to place than the first 39.1 CM and that the increase in costs of placing them was solely caused by the fact that the contractor had to place more than 39.1 CM of shotcrete.

Here, Appellant's unit costs to perform the overrun units were no different from those to perform the units originally estimated. Any other differences were due to matters other than the fact there was an overrun. Appellant admits the unit price he bid for shotcrete did not include all costs to perform the work. The additional quantities cost him no more to apply than the 39.1 CM that were the original estimated quantity plus 15%. The fact is that Appellant underbid the work in question and is mistaken in his understanding of the application of the VEQ clause. (Findings of Fact (FF) 5, 19.)

Thus, S&T is not entitled to unit price adjustment for the work originally solicited to be performed by the application of shotcrete. To compute the units which fit that description, one must take the

67.75 CM which the parties agreed were applied and back out the 2.5 units which were applied in lieu of concrete; the 13 units which were changed work; and the 2 units which were applied as to correct defective work. That computation leaves 50.25 CM subject for payment to the VEQ clause. (FF 14-15.) PPR #2 and #3 record payment for 50.2 units at the bid price of \$235 (FF 16-17). The appeal is denied as to payment for the overrun of originally required work at a rate in excess of the bid price.

Changed Work - Shotcrete to Replace Defective Concrete

Thirteen CM of shotcrete were applied to the project as the result of the direction to the contractor to remove defective concrete and replace it with shotcrete. Because it was not work originally required when the contract was bid, it is subject, not to the VEQ clause, but to the Changes clause. The Government initially paid it at the bid unit price for shotcrete (FF 10, 11). After receipt of Appellant's April 13, 2001 letter, the FS initiated Modification No. 5 under the Changes clause to increase the payment for the 13 CM of shotcrete to \$492.13 per CM using shotcrete, pump and operator and placing/nozzleman rates derived from that letter, as well as hours worked from the contract daily diaries (AF 303; Tr. 142-43). The CO never signed this modification but has treated it as though it were, in fact, a unilateral modification. Payment for 13 CM at \$492.13 extends to \$6,397.69. Appellant had previously been paid \$3,055 (13 CM x \$235). Payment of the difference (\$3,342.69) was made pursuant to PPR #5. (FF 11, 18). Appellant contends that the amount paid under Modification No. 5 is insufficient. Appellant's arguments are complicated by the fact that he and his former attorney categorize the quantities of shotcrete as having been placed on (1) days one and two (September 26 and 27) and (2) day three (October 18), rather than according to the appropriate bid item and whether they were basic contract work or changed work. In so doing, Appellant includes additional costs for the third day of shotcrete application and for a second seven-day cure (FF 21-22). Appellant contends that the FS's underestimation of the quantities of shotcrete in the solicitation caused the discontinuous application resulting in a remobilization and a second seven-day cure period. While I acknowledge that the FS significantly underestimated the amount of shotcrete required to perform the basic work and while I find believable Appellant's testimony that funding considerations influenced the inspector to insist that the contract could be performed using the originally estimated quantity (FF 6), I do not find the underestimate to have been the cause of the discontinuous application. By its nature, the use of an estimated quantity on the bid schedule is an indication that the Government cannot state precisely the amount of shotcrete required. In addition, by the time Appellant ordered materials, he had received work order #1 requiring the application of shotcrete to replace the defective concrete apron and work order #3 changing the concrete designed for placement under the crest of the spillway to shotcrete as well. He had also learned from his nozzleman that the job could require up to 60 cubic yards (45.8 CM) of shotcrete. These quantities totaled 61.3 CM (FF 7-8, 11, 13). This information should have alerted him that the estimated quantity was low and he needed to order more shotcrete than the 56 CM applied on the first two days.

It is true that even if Appellant had 61.3 CM of shotcrete delivered to the site, there would not have been an adequate amount on-site and he would have had to reorder. Had S&T contractor done so, however, I might very well have come to a different conclusion on the question of whether any additional costs were due solely to the shortfall, particularly as relates to the costs associated with the second cure period. There must be a break-point somewhere. My analysis requires the contractor to act reasonably on all information available to him before that break-point is passed. This I think Appellant failed to do.

The fact that S&T was unable to continuously apply the shotcrete without stopping to obtain additional quantities of shotcrete was caused by the contractor's failure to order a sufficient amount from the outset and not by the Government's low estimate. Thus, while payment for the 13 CM of shotcrete was properly made at a rate in excess of the bid rate (as it was a change and not an overrun), it also properly excluded costs for remobilization and the second seven-day cure. In preparing Modification No. 5 which increased the payment from that paid earlier for the same work under Modification No. 4, the Government used Appellant's own figures for the shotcrete material and the costs of pump and operation, the placing and nozzleman and finishing to calculate the rate of \$492.13 and an extended amount of \$6,397.69 (FF 11). The bid price of \$235 (extended to \$3,055) had previously been paid pursuant to Modification No. 4. Modification No. 5 therefore provided for a net amount of \$3,342.69. I find this adjustment for the changed work to have been an equitable one. The appeal is denied as to the claim for payment for 13 CM of shotcrete added by Modification No. 5 in excess of the amount already paid.

Changed Work - Shotcrete in Lieu of Originally Designed Concrete

Post award, but prior to the commencement of construction, the Government decided to eliminate all concrete on the project. The estimated 7.5 CM of concrete which was to be placed was therefore changed (without modification) to shotcrete. It took 2.5 CM of shotcrete to fill the area originally planned for concrete. Appellant's bid rate for shotcrete was \$235 per CM. Appellant's bid rate for concrete was \$350 per CM. For the changed work described above, Appellant was paid \$492.13 per CM for shotcrete. In the case of the work that was designed and bid for use of concrete, the Government paid Appellant for shotcrete at the concrete rate. Appellant's bid price for shotcrete was at a loss. Appellant has asserted in correspondence and testimony that his bid price for concrete contained a profit. (FF 12.)

Neither party provided specific evidence of the correlation between quantities of concrete and shotcrete. The record contains two pieces of evidence which shed light on that issue. The first is that the Government (which significantly underestimated shotcrete for the project) estimated 7.5 CM of concrete (FF 2). The second is Mr. Grajkowski's reservation on Modification No. 4 in which he states that it would take less shotcrete than concrete to replace the concrete apron (FF 10). Based on that evidence (and because we have no evidence to the contrary to consider), we conclude that had the contract not been informally changed to use shotcrete instead of concrete, Appellant would

have placed at least 7.5 CM of concrete and made a profit on that bid item. The Government has provided no basis (other than that it was greater than the bid price for shotcrete) to support the use of the concrete rate to pay for changed work adding shotcrete. I have already found the rate of \$492.13 to be an equitable rate for a change adding shotcrete to the contract. Thus, I find that Appellant's direct cost for the 2.5 CM should have been paid at the \$492.13 rate. That rate contained profit of approximately \$74 per CM. It is well settled that an equitable adjustment may not be properly used as an occasion for reducing or increasing a contractor's profit or loss, or for converting a loss to a profit or vice versa, for reasons unrelated to the change. Pacific Architects & Engineers, Inc. v. United States, 491 F.2d 734 (Ct. Cl. 1974). Thus, in order to equitably adjust Appellant's contract without causing a greater loss than bargained for at the time of the bid, I find that Appellant is entitled to be paid his direct costs for placement of 2.5 CM of shotcrete ($\$492.13 \times 2.5 = \$1,230.33$) less the profit included in that rate ($\$74 \times 2.5 = \185) plus the profit he would have earned on placement of 7.5 CM of concrete ($\$210 \times 7.5 = \$1,575$) for a total of \$2,620.33. Appellant has previously been paid \$875 ($\350×2.5) of this amount in PPR #5. Appellant is entitled to the difference of \$1,745.33. The appeal is granted regarding additional payment for 2.5 CM of shotcrete placed in lieu of contractually required concrete to the extent described above.

Shotcrete Used to Correct Defective Work

At the conclusion of shotcrete placement on October 18, 2000, a quantity of shotcrete remained unused. There were also some defects in the work performed on September 26 and 27 due to periodic failures in watering during the seven-day cure period immediately thereafter. The remaining shotcrete was used to cover unfinished slopes from the initial pour and to cover cracks on the poorly cured shotcrete along the upper right spillway without contemporaneous objection from Appellant. (FF 14.) The appeal is denied as to payment for excess shotcrete used to remedy defects in Appellant's work.

OTHER CLAIMS

High Pressure Washing of Spillway Rock Slopes

This item was included in Appellant's initial October 10, 2000 claim. After review of the CO's response to it, Appellant withdrew it. At the hearing, Appellant presented no evidence in support, but raised it in his *pro se* supplemental brief. The appeal is denied for lack of proof.

Additional Clean-up

The contract required clean-up and prohibited the flow of waste water into live streams. It did not specify a location for cleaning trucks. The only evidence in the record regarding the choice of location for cleaning the trucks is that it was selected by FS representatives. Those representatives then directed a second locale requiring clean-up of two sites, rather than one, after washing the trucks. Appellant seeks \$125 for costs of cleaning and magnetically sweeping the first site. (FF 22.) In the absence of a contract requirement to clean on a particular site, and in the absence of any

Government evidence that it did not direct use of the first site, we find the direction to use first one, and then another, clean-up site, a constructive change to the contract. The appeal is sustained as to Appellant's claim for \$125 in additional clean-up costs.

Drilling Seep Holes

The contract required drilling of seep holes as directed by the CO (FF 21). The work performed to do so was a contract requirement. The appeal is denied as to this claim item.

DECISION

The appeal is sustained in the amount of \$1,745.33 for the change from concrete to shotcrete. Interest on this amount is payable pursuant to 41 U.S.C. § 611 from October 10, 2000. The appeal is sustained in the amount of \$125 for the costs of additional clean-up. Interest is payable on this amount from March 19, 2001. In all other respects, the appeal is denied.

ANNE W. WESTBROOK
Administrative Judge

Opinion by Administrative Judge POLLACK, concurring in part, dissenting in part.

Except for the matters discussed below, I concur in the decision of Judge Westbrook, including her quantum decisions on the change from concrete to shotcrete and clean-up claims. Where we differ is that I would allow recovery for a portion of the excess quantity under the VEQ clause.

ENTITLEMENT UNDER THE VEQ CLAUSE

The estimated quantity in the contract called for 34 cubic meters (CM) of shotcrete, 115% of which calculates to 39.1 CM. The contractor placed a total of 67.7 CM of shotcrete on the project. Some of this was for quantities added by changes for which the contractor has been paid. Once I back out those added quantities and the original estimate plus 15% (a total of 54.6 CM), the excess quantity placed beyond 115% is 13.1 CM of shotcrete. Of that, 11.75 CM were placed on October 19. The remaining overrun was placed on September 27.

The Appellant has presented several theories of relief. To the extent he seeks recovery for actual costs expended on October 19 or attempts to reprice the work, those theories legally fail. To the extent Appellant is entitled to relief, it is under the VEQ clause.

As interpreted by the Court of Appeals for the Federal Circuit, a contractor seeking an upward adjustment under the VEQ clause is entitled, as to the qualifying excess or decreased quantity, to the difference in performance costs between what it cost the contractor to place a unit of the specified quantity and what it cost to place a unit of the excess or decreased quantity. As pointed out by Judge Westbrook, in her discussion of Foley, the amount the contractor bid as its unit price is not controlling and does not establish a baseline for determining additional cost and thus is not a factor in determining an adjustment under the VEQ clause. Rather, to determine if there is relief available, we must first determine if there was a difference between the costs to perform the original units and the costs to perform the units for which adjustment is sought. As addressed by Professors Cibinic and Nash, in *Administration of Government Contracts*, 3d. Ed., pp. 541-543, the parties are bound to the unit prices for quantities of work up to the full extent of the variation range, with repricing to occur only as to quantities outside that range. In addressing the Court of Claims' decision in Victory Construction Co. v. United States, 206 Ct. Cl. 274, 510 F.2d 1379 (1975) (cited as binding precedent in Foley), the professors stated at p. 541, that the court held that the party demanding the adjustment had the burden of proof that the costs had varied because of the difference in quantity and that the amount of the equitable adjustment was to be determined solely on the basis of the difference in cost because of the larger or smaller quantity, rather than on a complete repricing of the work based on the actual costs for the excess quantity.

Here, the existence of the overrun is undisputed. Had there been no change in quantity, the units placed on October 19 would not have been needed. Therefore, the issue left for resolution is

whether the Appellant here has shown that in performing the increased quantity, it had an increase in costs from the amount it was expending per unit for the base quantity and whether Appellant can show that the costs were the result of the excess quantity as opposed to matters unconnected to that quantity increase.

Both of my colleagues have found no entitlement to recovery. Judge Westbrook has made the finding that Appellant's costs to perform the overrun units were no different from what it cost Appellant to perform the units set out in the estimate. Judge Vergilio has found that the Appellant has failed to provide sufficient evidence to establish that it incurred additional unit costs in placing the 11.75 CM. I find otherwise.

There is no question that the costs claimed by Appellant for performing the excess quantity could have been better documented. There were no checks provided, some of the claimed costs were not applicable to an adjustment and some of the supporting material required various levels of interpretation. Moreover, Appellant never compiled its own calculation comparing the cost of performing the basic units with the costs of performing the excess units.

Nevertheless, the evidence, as presented, adequately indicated to me that the costs of placing units on October 19 was greater than the cost per unit for the original work. Moreover, there was sufficient evidence to make a reasonably accurate comparison. The Appellant did provide statements from subcontractors and vendors. It also provided its own statements as to the labor hours and rates expended for various tasks. The material provided by the Appellant was submitted as a Statement of Costs, in response to a Board order and was provided to the Board and FS prior to the hearing. The Statement of Costs was also addressed in testimony.

In addition to the material provided in the Statement of Costs, the Appeal File (AF) also contained documents relating to the changes which added 15.5 CM (13 and 2.5 CM) of shotcrete to the contract. Those documents reflect the dollar figures claimed and dollars paid for labor by the FS for that changed work. (AF 303.)

The FS presented no specific rebuttal to Appellant's dollar presentation. The FS's affirmative evidence essentially consisted of counsel asking Mr. Jones if Mr. Jones had evidence of any kind that the contractor's unit costs went up as a result in exceeding the 115% of the estimate. Mr. Jones unsurprisingly testified that he had no such evidence, however, he provided no amplification nor did he point out inconsistencies or disagreements with Appellant's raw costs. The fact is that there was no credible challenge to the Appellant's dollar figures.

Taking the evidence as a whole and given a lack of challenge by the FS, I find that there is adequate, albeit not ideal evidence, to reasonably establish the costs for performing the base units and to establish the costs for performing the overrun units. I set out that comparison below, from which I conclude there was an increase in costs to perform the last 11.75 CM.

Appellant presented an invoice from Superior Pool which covers the nozzleman. It shows an October 19 cost of \$2,140 (the amount Appellant said he paid the nozzleman for the third day)

(Transcript (Tr.) 59 and Supplemental AF (SAF) 3, 5.) On SAF 3, Appellant writes that his original bid was \$100 a yard for every yard placed. He then continued, stating that it ended up costing for the men he furnished, for his crew and for extra shotcrete placed. Appellant then wrote "DAY 3 was \$2140." Appellant in his testimony, however, stated that on the last day he paid the nozzleman \$100 a yard, not meter, for his time (Tr. 24). Since there were 11.75 CM poured, which is 15.36 cubic yards (CY's), there is a disconnect between the \$2,140 and the testimony regarding \$100 a yard. As it is Appellant's burden to establish the costs, I use the lower testimony number. Appellant either did or should have paid the nozzleman \$1,536 for October 19. Appellant presented a separate document, also on Superior stationery which shows a cost of \$1,140 for labor (the amount paid to the nozzleman's three helpers for day three, October 19) at \$35 an hour. Two of the helpers are shown working 12 hours each and the third, 8 hours. (Tr. 61; SAF 2-4.) In his testimony, referring to what he paid on the third day, Appellant at one point said he paid \$1,260 per laborer and less for the third laborer used on October 19. It is evident from SAF 4 that Appellant mis-spoke. The figure used by Appellant to arrive at \$1,260 per day for each laborer was actually the total for 3 days of work for each of the two men. (Tr. 23.) The correct figure for the three laborers for October 19 is \$1,140 (\$420 for each of the two laborers and \$300 for the other). The total for the laborers and nozzleman is \$2,676 for October 19.

The record contains no specific document which sets out the cost for the nozzleman for September 26 and 27. However, Appellant testified that on the last day he paid the nozzleman \$100 a yard (not meter) for his time and indicated that such sum was the going rate. (Tr. 24.) Fifty-six CM were poured on the two September pour dates. That is approximately 73.25 CY. At \$100 a yard, that comes to \$7,325 for the nozzleman for September 26 and 27. As to the helpers, I use SAF 4, the same document used above to establish the costs for the helpers on October 19. It shows costs for two helpers per day, on September 26 and 27 respectively, at a combined cost of \$840 per day. That calculates to \$1,680 for two men for September 26 and 27. The total for September 26 and 27 for these items is \$9,005.

The next item provided by Appellant was a dollar figure for soil testing. Appellant stated that the sum on SAF 7, \$500.52, was the costs for the October 19 pour. (Tr. 61-63.) That is confirmed by the notation that it covers the time period in October. The document shows \$754.42 as the previous billing and that sum would cover costs associated with the units on September 26 and 27. The \$500.52 was partially comprised of a finance charge and I reduce the sum for October 19, by that to \$485.14.

The next cost presented by Appellant was \$438, which Appellant said was expended on October 19, for Outlaw Concrete for pumping the concrete at \$85 per hour plus \$50 travel time each way (Tr. 25). Appellant explained that he had to pay Outlaw by the hour for every hour that Outlaw was on the site pumping shotcrete. As stated by Appellant, if he only does 34 yards, he is still there one day. (Tr. 63.) Based on an hourly rate of \$85 an hour and assuming 12 hours (basing that on the time the laborers were at the site) for September 26 and 27, the figure without travel costs would be \$2,040. However, Appellant testified that on day three Outlaw billed Appellant \$438 and the rest was for days one and two. The statement from Outlaw, SAF 10, shows \$1,922.50 as the balance on

September 30, 2000, after the first two pours. That is the dollar figure I use for September 26 and 27 for Outlaw Concrete. (SAF 10.)

Appellant also lists \$855 for United Rental. However, portions of that sum involve a mini-excavator and Appellant did not connect those costs to the added quantity. Accordingly, those are not used in my calculation. I do allow the costs for the compressor of \$264.42 and for the pump at \$226. The water pump covers October 18 to 26, the time used for the watering of the shotcrete. In arriving at the cost for performing units of this same work for September 26 and 27, the Appellant would have also incurred the cost of the pump of \$226 (for a week) plus one additional day at \$32.28. The compressor cost would have likely been the same cost on a daily basis for the September dates. Therefore, for September 26 and 27, I use \$528.84 for the compressor.

Appellant also shows \$99 for gas for the pumping of water for the seven days. While there is no invoice, I accept that as reasonable, again noting no Government challenge. Gas, however, also would have been used to run the pumps for the watering for the September 26 and 27 pours. In addition to the base cost of \$99, I add an additional day of gas at \$14 for the first pour since it ran an extra day.

The final item I use for comparison is the cost of the laborer for the water pumping. It is not disputed that Appellant had a laborer present for the seven days of water pumping after the October 19 pour. I calculate the costs for the post-October 19 watering by taking one laborer for eight hours for seven days. I use the rate noted as laborer curing from the FS work papers, Modification No. 5. The sum of \$45.88 per hour (which includes all markups) was used by the FS in arriving at the final pay amount for Modification No. 5. The labor for October 19 watering, thus comes to \$2,569.28. (AF 303). I compare that to the costs for pumping after September 26 and 27, which either did or should have covered eight days rather than seven. Thus, I multiply the same labor rate used above by eight hours for eight days. That comes to \$2,936.32 for the post-September 26 and 27 watering.

For purposes of comparing costs I do not include shotcrete costs, since the unit cost for that material was constant for all three dates (Tr. 76).

The comparative totals are thus \$6,757.88 for October 19 and \$15,518 for September 26 and 27. I divide the October number by 11.75 CM and that comes to \$575.13 per unit. When I divide the September 26 and 27 numbers by 56 CM, I come to \$277.12 per unit. The difference is \$298.01 per unit.

Some shotcrete that was placed on October 19 was used to repair defects and as such was not new work or an increase in quantity within the VEQ clause. There is disagreement between the parties as to whether Appellant could have used a cheaper means to perform those repairs, had it not already been bringing the shotcrete on the truck. There also appears to be no precise measure of what was used, however, the parties mention 2 or 3 CM. My colleague, Judge Vergilio, has calculated that Appellant used 2.1 CM for the repair. For purposes of calculating the amount due, I reduce the 11.75 CM by 2.1 CM and thus allow a total overrun of 9.65 CM. That calculates to \$2,980.10. Appellant is entitled to that recovery under the VEQ clause.

In addition to finding that Appellant did not establish the additional costs, Judge Westbrook and I disagree on another significant matter. Judge Westbrook takes the position that under Foley, the Appellant must show not only that the additional quantity was more costly to place but also must show that the increase in costs was due solely to the fact of the overrun. As I understand her reading, she reads the term “solely” to mean that to be covered, the increased costs must be “exclusively” attributable to the variation in quantities. Under her interpretation, if there is a parallel or intervening cause, then the “solely” test is not met. While Judge Westbrook’s interpretation is a possible interpretation of the term in the clause, I find that interpretation to be too narrow, particularly in light of a lack of clear definition for the term “solely” in the case law. While Foley very clearly spells out that the means of calculating an adjustment, “due solely to the variation,” is to measure costs of the adjusted quantity against the actual costs incurred by the contractor to place the non-adjusted quantities, the court did not give similar guidance as to how we are to apply the term “solely” when dealing with causation. To read “costs due solely to the quantity variation,” as eliminating any costs that cannot be exclusively attributed to the quantity variation, creates what I see as an unworkable and unfair situation. The nature of construction is multi-faceted. Work does not take place in a vacuum and work is affected by multiple situations and conditions, often simultaneously. Some of the conditions affecting the work will be material, others less so, but still significant. To read “solely” as requiring exclusive causation causes these other conditions to trump otherwise valid costs caused by variation.

A more logical reading, and one that does not create an almost impossible hurdle, is to read “solely” as applying to costs, not causation. To qualify for an adjustment, the adjustment must be associated with the excess or decreased quantities. Then, costs “solely due” to the variation, as opposed to costs not directly tied to the variation, are to be the only costs considered in making the comparison between the original and adjusted units.

CONTRACTOR’S OBLIGATION TO HAVE INCLUDED LARGER AMOUNT ON THE SEPTEMBER POURS

Judge Westbrook takes the position that the contractor had obligations to better estimate the job, once the initial excavation made portions of the work more accessible. She specifically notes that based on the observations of the nozzleman and the addition of 15.5 CM of shotcrete through changes, the Appellant should have known to order more material than it brought on the site on September 26 and 27. She found that the failure to order a sufficient amount is a basis for denial of any adjustment. She notes that had she found that the Appellant had ordered a reasonable amount, she may have allowed some recovery, apparently under the Changes clause. Because Judge Vergilio finds a lack of proof as to the costs to perform the work, he specifically declined to decide the question of reasonableness. I find, for the reasons set out below, that Appellant acted reasonably and should not be denied recovery on the basis that he should have brought more material to the site on September 26 and 27.

The FS estimated 34 CM. The terrain was described by Appellant as very rough and not a flat surface which you could figure out easily (Tr. 10). The inclusion in the contract of the VEQ clause told Appellant that if the quantity increased he would be paid for the additional cubic meters.

Whether that was to be compensated at the bid price or some other figure depended upon how the situation fit within the adjustment provisions of the VEQ clause. There was, however, no question that Appellant would be entitled to some payment for each additional unit.

The use of unit pricing for the estimate makes this situation quite different than the situation where a contractor bids a lump sum price on a Government estimated quantity. In those situations, a contractor is not automatically paid for added quantities, absent a showing of a differing site condition or other relief. In that situation it would be imprudent for a contractor not to perform its own estimate. Under the VEQ clause, however, the risk is quite different and as such there is no specific obligation or necessity for a contractor to perform his own estimate. This is also unlike a timber sale estimate which typically carries a series of disclaimers as to accuracy and puts the burden on the contractor for determining quantity.

On July 26, Appellant's nozzleman came out to the site. By that point excavation had been pretty well completed. At that time, the FS had not added the two shotcrete changes. The Appellant testified as follows as to what he was told:

Q. Did he tell you it was going to take more than 39 cubic meters.

A. I believe he said up to 60 would be a high estimate.

Q. Up to 60 meters.

A. Yes, that would be on the high side.

(Tr. 49.)

The above reference to 60 meters actually is referring to 60 cubic yards (AF 151, 232). From time to time the parties shifted from meters to yards and thus one must look at the context to determine whether the reference was intended or not. Sixty cubic yards equates to 45.8 CM (conversion rate is 1.308). That compares to the 34 CM set out in the contract.

The record also shows that on August 2, Peter Jones, the FS inspector, remeasured the quantity. He had prepared the original FS estimate of 34 CM. (AF 154.) His daily log for August 2 mentions the remeasurement but provides no quantity.

At some point before Appellant started pouring, he went out to the site with Mr. Jones. He testified that he told Mr. Jones that his nozzleman said it would take more shotcrete than in the estimate. According to Appellant, but denied by Mr. Jones, Mr. Jones said we're going to do it with what the contract spells out because the FS did not have the funds, and they wanted the job done at a certain dollar amount or less. (Tr. 49.)

Notwithstanding the above, Appellant stated that he continued to think that the 34 CM would not be enough so he ordered more (Tr. 16). He ordered 72 yards (55 CM). (AF 132-33.) In his letter of

October 5, 2000, just after the first two pours, Appellant discussed what had happened on the earlier pour and addressed his plans for a future pour. Appellant stated that he had been told that Peter Jones was going to use a maximum of 63 yards. That is 48 CM. Appellant did not identify a date for receipt of that information. Appellant also did not explain or provide any breakdown of the 48 CM. It is noteworthy, however, that adding the original estimate of 34 CM to the 13 CM and 2.5 CM in the changes, the total is 49.5, not far off from the 48 CM being attributed to Mr. Jones by the Appellant.

Appellant also addressed Mr. Jones' statements in a letter the Appellant sent to the CO dated October 10, 2000. In this letter, Appellant stated that Mr. Jones estimated 47.5 CM for the job after remeasuring. Appellant said that in the letter that he (Appellant) ordered 54.5 meters or 72 yards "to be on the safe side." Appellant said that they (Appellant) had been told that 47.5 was the max. (AF 228-229.)

Appellant began application of the shotcrete on September 26 and continued through September 27. When Mr. Jones arrived at the site, the sixth batch of shotcrete was there. According to a diary entry of Mr. Jones, Appellant asked him numerous times how much more shotcrete to order. He told Appellant that it was up to Appellant to make the measurements and assessments of shotcrete it would take for the job. As to the seventh batch, Mr. Jones said that some portions of the site appeared to receive extra material due to lag time between signals from the nozzleman to helpers and to the boom operators. Mr. Jones also referenced issues with the eighth batch and noted that the slump might have caused a larger shotcrete take in voids. (Tr. 189-190.)

Mr. Jones had a particular view of the contractor's obligation. His view was that the contractor had the obligation to heed the warning of his nozzleman and "he failed to provide exact, on-the-ground measurements for his own satisfaction." He pointed out that the estimate provided by the Government was prior to major earthwork changes. He continued that Appellant would have been expected to provide his own on-ground measurements to make his own determination for the exact quantity and materials to be expected to be delivered to the site. (Tr. 139.) Mr. Jones' perception fails to take into account the nature of estimated quantities. This is not a timber sale contract where the estimated quantity is accompanied by numerous disclaimers. The quantity in this contract was supposed to be relied upon and if the quantity changed, as it did here, the contractor got paid for the extra material. Furthermore, when the cost of placing the additional units exceeds or decreases from what it had actually cost to perform the initially stated units, then entitlement to an adjustment is provided by the clause. The purpose of the adjustment is not to penalize either party. Rather, the language allows adjustment when the excess or decreased quantity results in a difference in the costs of providing each unit, so as to avoid a contractor absorbing a loss due to the new material or to avoid a contractor securing a windfall.

According to Judge Westbrook the Appellant was obligated to act on the nozzleman's statement and other surrounding information which would have made it evident to the contractor that he should have anticipated at the time of pour 60 CM, consisting of, in her view, 45 CM (60 yards) indicated by the nozzleman on the July 28 visit, and 13 CM and 2.5 CM added through modifications prior to the September pour dates. The figures set out above add up to 60.5 CM. Appellant ultimately had to

place 67.5 CM. Of this, 2 CM have been attributed to repairs. Given the figures, even under Judge Westbrook's view, Appellant still would have been short had Appellant ordered 60.5 CM. He still would have had to come back and perform some added quantities on the later date.

I take the view that Appellant was not unreasonable by choosing to order 56 CM rather than 60 CM for the September 26 and 27 pours. The nozzleman estimated 60 yards on the high side. "Highside" indicates an overestimate to be safe. The FS was indicating to Appellant that it would not go over 47 or so CM. Appellant had nothing to gain by not ordering more material if he had reason to believe that it was needed and would be paid for. Appellant in fact ordered excess material because it believed the estimate was too low. Estimating shotcrete placement is far from an exact science. The shotcrete is filling voids that can only be seen in part. While the parties agree that the site had rough terrain, the fact is that Mr. Jones' estimate of 34 CM was only 65% of the actual amount of shotcrete needed, not counting the changes. Yet here it is contended, that Appellant's decision to bring on 56 CM rather than 60 CM makes his actions unreasonable.

Appellant as a reasonable business man had the right to make a business judgment. Judge Westbrook's opinion essentially provides Appellant no wiggle room down. The Appellant was paying approximately \$237 per cubic meter for shotcrete. Once it was ordered, it could not be returned. There is no reason to believe that if Appellant brought out 11.75 more CM of shotcrete on September 27, and it was not needed, that the FS would have paid it for that material. Appellant had the right as a reasonable business man to attempt to minimize wastage. While it may be evident in hindsight that a decision to bring on more shotcrete would have been a better choice, that is not the test. The test instead is not whether he made the right decision but instead the test is whether his decision at the time was reasonable. Given the circumstances, I find that he should not be penalized for the business decision that he made.

Appellant is entitled to the sums allowed by Judge Westbrook and in addition, \$2,980.10 under the VEQ clause.

HOWARD A. POLLACK
Administrative Judge

Administrative Judge VERGILIO, concurring in part, dissenting in part.

I determine that the contractor is entitled to none of the relief that it requests. I write separately from the other panel members, as I disagree with various of the factual conclusions, some of the legal analysis, and portions of their decisions. Factually and legally, those opinions are flawed.

In its post-hearing briefs, the contractor pursues relief in four areas, those relating to shotcrete, high pressure washing, truck clean up, and weep holes. The record fails to support each item of the requested relief, while the high pressure washing is not a proper item of the appeal before the Board.

The contractor seeks to recover what it describes as its costs incurred (plus profit) to apply and cure the reinforced shotcrete on the third pour day. In its initial brief, the contractor sought to recover \$15,559.01 reduced by \$6,397.69, the payment received for this work under the contract (Brief at 5). In its supplementary brief, the contractor seeks to recover the full amount of \$15,559.01 plus \$419.52, described as an additional 5% profit for its application costs (Supplementary Brief at 12).

The contractor misinterprets the Variation in Estimated Quantity clause. Although the contractor seeks to recover its total costs incurred involving shotcrete volume in excess of 115% of the estimated volume, the clause permits recovery only at the unit price and of cost increases due solely to the variation above 115% of the estimated volume. The clause does not permit replacement of the unit price with a complete repricing based on actual costs plus a reasonable profit. The clause does not convert the contract to a cost reimbursement contract for the work in excess of 115% of the estimated volume. The contractor has failed to present a record and argument that costs increased due solely to the variation in volume. The total cost approach pursued by the contractor does not support relief. Having received the unit price for the units installed, the contractor is entitled to nothing more.

The contractor seeks payment for what it describes as extra expenses for extra pour days. In particular it seeks payment for one more day of a boom truck (\$450.00), mobilization for a pump truck (\$75.00), and additional test panels and lab work (\$594.12) (Supplementary Brief at 3). The record does not demonstrate that any of these items reflects an additional, uncompensated cost. The boom truck was utilized for but a single day, as anticipated to perform under the contract. The additional mobilization alleged has not been supported in the record in terms of actual costs and, utilizing the asserted charge, the contractor has not shown that it represents an uncompensated or additional charge. The contractor also has not demonstrated that the alleged test panel costs reflect an uncompensated cost or an additional cost.

The contractor seeks \$1,429.70 as compensation for reinforced shotcrete utilized but not compensated by the Government (Supplementary Brief at 7). The Government maintains that the related volume was used to repair cracks or improperly finished surfaces. Contrary to the conclusions of the contractor, the record establishes that initially the contractor did not finish surfaces as required and did not conduct the cure process as required by the contract. The placement of the contested additional reinforced shotcrete was not a requirement of the contract; the contractor

chose the method of correction. The contractor should not be compensated for its costs to perform such corrective work.

In another area of requested relief, the contractor states that if the Board rules the contractor is entitled to its actual costs instead of the quoted price for quantities over 115% of the estimate, it should receive an additional \$3,116.14 for 9.25 CM from the day-two pour (Supplementary Brief at 9). The contractor is not entitled to its actual costs for work under the shotcrete line item. In any event, the record fails to support the alleged volume and actual costs to perform. For the shotcrete applied, the contractor has not demonstrated entitlement to additional compensation under the terms of the contract and as supported by this record.

Also, the contractor seeks to recover \$985.00 for alleged costs relating to the high pressure washing of the project site in preparation for the shotcrete. Relief in this area fails because this item was not part of the claim before the contracting officer underlying this dispute. Further, the record does not demonstrate that any work was required in excess of that detailed in the contract or that the alleged costs were actually incurred.

For truck clean up and for the drilling of weep holes, the contractor seeks to recover \$89.00 and \$438.00, respectively. On each of these items, I conclude that the contractor has failed to demonstrate both entitlement and quantum. The record does not demonstrate that any work was required in excess of that detailed in the contract.

I present what I view to be the material facts followed by a more detailed analysis of my resolution of each item of the claim, and brief comments regarding some aspects of the contractor's allegations and the conclusions of the other panel members.

MATERIAL FACTS

The contract

1. The contract for the repair of the Squaw Lake Dam spillway represents a project that includes all labor, equipment, materials, supplies, supervision and incidentals necessary to complete the described work:

Construction/reconstruction of dam embankment and spillway, removal of damaged concrete, removal of woody debris, grubbing and removal of tree stumps and rootmass, removal of rocks embedded in concrete, excavation of loose/weathered rock and irregularities, high pressure washing of spillway rock slopes, placement of excess excavation, installation of gabion mattresses for embankment protection, removal of damaged gabion mattress, grass seed and fertilize, installation of grouted rock anchors, placement of steel fiber reinforced silica fume shotcrete.

(Appeal File at 18 (¶ C.1).)¹

2. The contract contains eight line items of payment for the completion of the project. Two line items are of particular relevance in this dispute. One is concrete (line item 602(03)), to be compensated based upon actual quantities on a cubic meter (CM) basis. Another is steel fiber reinforced silica fume shotcrete (line item 03371-1), to be compensated based upon actual quantities on a CM basis. Mobilization is a separate line item to be compensated as a lump sum. (Appeal File at 10.) Payment under the contract is made only for the line items, in accordance with the described methodology (Appeal File at 10 (§ B, Schedule of Items), 19 (¶ C.4)).

3. The contract incorporates a Variation in Estimated Quantity clause (APR 1984) (FAR 52.211-18) that directs, in pertinent part:

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 15 percent or below 85 percent of the estimated quantity.

(Appeal File at 31.)

4. The contract also contains a Changes and Changed Conditions clause (APR 1984), 48 CFR 52.243-5 (Appeal File at 31). Under paragraph (a) of the clause, the contracting officer “may, in writing, order changes in the drawings and specifications within the general scope of the contract.” Paragraph (c) provides that if such changes “increase or decrease the cost of, or time required for performing the work, the Contracting Officer shall make an equitable adjustment[.]”

Concrete (item 602(03))

5. The contract identifies concrete as a payment item, with payment to be made for the actual quantity of concrete applied. The estimated quantity is 7.5 CM. The contractor quoted the unit price of \$350 per CM, which is found in the contract. (Appeal File at 10.)

6. The contract contains a special project specification for the concrete work. Specific direction is provided for the design and construction of forms. Moreover, “Upon approval from the [contracting officer], non-fiber reinforced shotcrete may be substituted for methods requiring forming.” (Appeal File at 46 (¶ 602.04).) A note on a contract drawing detail states: “Item 602(03) may be placed by either forming and pumping or shotcrete methods” (Appeal File at 90 (note 4)).

Shotcrete (item 03371-1)

7. The contract identifies shotcrete work, with steel fiber reinforced silica fume shotcrete as a payment item. Payment is to be made for the actual quantity of reinforced shotcrete utilized. The estimated quantity is 34 CM. The contractor quoted the unit price of \$235 per CM, which is found in

the contract. (Appeal File at 10). Prior to the Government selecting the contractor, the Government sought and obtained verification from S&T of the shotcrete unit price (Appeal File at 228, 231, 241).

8. The project specifications of the contract include the following regarding the shotcrete item:

1.2 Measurement and Payment

Payment will be made for all costs associated with furnishing, delivering and placing wet-mix shotcrete.

1.2.1 Method of Measurement

Shotcrete will be measured for payment based upon the quantity in cubic meters of solid material gunned through the nozzles.

1.2.2 Basis of Payment

The accepted work will be paid for at the unit price shown on the SCHEDULE OF ITEMS.

Payment will be under [line item 03371-1.]

(Appeal File at 49-50 (Part 1).) As detailed in the project specifications, noted in the following paragraphs of these material facts, the shotcrete work was more involved than solely the placement of reinforced shotcrete; however, the contract identifies the volume of reinforced shotcrete applied as the basis for payment.

9. The contract contains specific direction regarding the preparation of surfaces before the placement of shotcrete. "All rock, concrete and gabion surfaces shown for shotcrete placement shall be cleaned with a high pressure water jet in preparation for shotcrete placement. . . . Where cleaning occurs more than 2 days prior to placing shotcrete or where the work in the area subsequent to the cleaning causes dirt or debris to be deposited on the surface, the surface shall be cleaned again as the last operation prior to shotcrete placement." (Appeal File at 54 (¶ 3.2.0).) Rock surfaces shall be cleaned to remove loose or crumbling material and other foreign matter that will prevent a bond of the shotcrete (Appeal File at 54 (¶ 3.2.3)).

10. The preparation of the site (including the excavation of earth, rocks, and trees) and surfaces would change the existing contour and could alter the ultimate amount of shotcrete needed to satisfy requirements to place shotcrete at a minimum of 100 mm thick on slopes and 150 mm thick on the channel (Appeal File at 91 (note 2)).

11. The contract contains specific requirements regarding shotcrete curing. For example, "[i]mmmediately after finishing, shotcrete shall be kept continuously moist for at least seven days." (Appeal File at 57 (¶ 3.6.1).)

12. In a drawing, the contract depicts a typical cross-section of the project, as finished. The drawing specifies that there is a required minimum thickness of shotcrete. Notes on the drawing

state: "Provide 13 mm gun finish shotcrete flashcoat without steel fibers" and "Drill 25-50 mm drain holes through shotcrete, as Marked on the Ground by the [contracting officer]." ² (Appeal File at 89.)

Performance

13. On July 27, the Government issued and the contractor received work order 1. Among various actions, this work order directs that the contractor (1) remove and dispose of defective spillway concrete, as marked on the ground, and (2) replace the defective concrete with the concrete under line item 602(03). This work constitutes a change to the work required under the contract; the work order includes not-to-exceed prices, and notes that prices are subject to contracting officer approval. (Appeal File at 201.)

14. On July 28, according to the contractor, the nozzleman who would place the shotcrete visited the project and estimated the need for up to 60 cubic meters or 60 cubic yards of shotcrete (Transcript at 19-20, 48-50, 56, 132, 232). Despite the different testimony from the contractor as to the unit of measure (60 cubic yards is equivalent to 46 CM, approximately), there was no attempt to clarify the record. In a letter to the Government seeking additional payment, the contractor states that the nozzleman estimated a need for 60 cubic yards of shotcrete (Appeal File at 232). On August 2, the Government inspector "measured spillway and slope to get estimate of shotcrete volume now that most of excavation has been completed." The results of the measurements and calculations are not detailed in the evidentiary record, and were not explored with the inspector at the hearing. (Appeal File at 154.)

15. On August 4, the contractor received work order 3. The work order modifies the requirements of work order 1 (Material Fact (MF) 13), as it directs the contractor to use reinforced shotcrete (item 03371-1), rather than normal concrete (item 602(03)), to replace the defective concrete apron that the contractor had removed pursuant to work order 1. The inspector's contract daily diary notes, "While [the contractor] agrees that [th]is is the better method, he expressed his concern that he will be losing money with the shotcrete and he may want to submit a claim to the [contracting officer]." (Appeal File at 156, 207).

16. On September 25, the contractor signed contract modification 4, said "to update the contract to reflect a change in the estimated quantities installed or to be installed." To incorporate into the contract the additional work referenced in work order 3, the modification increased the estimated quantity of reinforced shotcrete (item 03371-1) by 13 CM, such that the new total became 47 CM at the stated contract unit price of \$235. The contractor reserved the right to seek additional payment, as it makes explicit reservations in its release, because of its actual costs of shotcrete (purchase and installation). (Appeal File at 101-03.)

17. Also on September 25, the contractor submitted a letter to the Government, seeking to alter the contract requirement for flash coat coverage of shotcrete (MF 12):

I propose to cover the spillway with a full six inches of shotcrete instead of five and one half inches of shotcrete plus one half inch flash coat. We will trowel float the six

inch shotcrete with one pass to push do[wn] any steel fibers that may protrude out the top of the shotcrete. Also we let it be known that we cannot get a smooth surface due to the roughness of the spillway -- but we will take action to smooth out all areas where a trowel will work. Also we will try to trowel access areas, within reason.

(Appeal File at 130.) On the same day, the contractor signed work order 6, issued by the contracting officer's representative, in which the Government accepts the contractor's proposal to substitute a trowel finish to the reinforced shotcrete (Appeal File at 212). To accomplish this substitution of reinforced shotcrete for non-fiber reinforced shotcrete, the contractor would utilize at least an additional 3 CM of reinforced shotcrete, not anticipated at the time of award or at the time the nozzleman made his estimate.

18. On September 26 five batches of reinforced shotcrete were applied (Appeal File at 183). The batch tickets show that each of five trucks had a volume of 7 CM, for a total of 35 CM (Appeal File at 185-87). The Government inspector expressed concerns to the contractor about keeping shotcrete moist during the cure period (Appeal File at 183). On September 27, the contractor signed a notice of non-compliance, which specified that the contractor had failed to provide for immediate and continuous moist curing of the finished shotcrete on September 26 (Appeal File at 213).

19. On September 27 three batches of reinforced shotcrete were applied (Appeal File at 189-91). The batch tickets show that each of three trucks had a volume of 7 CM, for a daily total of 21 CM (Appeal File at 187-88). I find to be accurate, the statement in the Government inspector's daily diary that the contractor "asks me numerous times how much more shotcrete to order. I tell him that it is up to him and his shotcrete man to make the measurements and assessments of shotcrete take for the job." (Appeal File at 189.) The contractor did not provide a trowel finish to all reasonably accessible slopes on the shotcrete applied on September 27 (Appeal File at 214).

20. The contractor did not complete the set up for watering the shotcrete, to keep it moist, until September 28 (Appeal File at 191, 214).

21. On October 2, not all shotcrete surfaces were receiving continuous sprinkling. By that date the contractor had not drilled weep holes, and had removed test panels before they were cured on-site for a full seven days (Appeal File at 193, 215).

22. The statement, in the Government inspector's contract daily diary for October 18, accurately reflects a conversation held on-site that day between the Government inspector and the contractor:

We discussed that all remaining slopes were to be completed shotcreting and then we would stop operations to determine amount of material remaining in mixer truck. The remaining material quantity was to be supplied by [contractor] to cover the unfinished slopes from last shot that has steel fibers sticking out. If there wasn't enough remaining, he agreed to cover with another approved mix. In addition, the right uppermost spillway has shrinkage cracks developing from lack of initial moisture cure

(the remaining slopes have cured without cracking). Any additional shotcrete was agreed to be used to cover the cracks and refinish.

(Appeal File at 194.)

23. On October 19, two batches of reinforced shotcrete were applied (Appeal File at 196-97). The batch tickets show that the first truck had a volume of 7 CM, and the second truck had a volume of 6.21 cubic yards, which is equivalent to 4.75 CM, approximately (Appeal File at 195). The daily total from the batch tickets is 11.75 CM. The contractor applied no concrete on the job for the relevant line items; for the concrete line item in the basic work (MF 5), the contractor utilized reinforced shotcrete.

24. Some of the reinforced shotcrete from the second truck was used to correct defects from the initial pour. The Government inspector noted in the contract daily diary for October 19: "finished all of slopes after using about 3.5 yards out of 6.5 yards in truck. [Contractor] agrees to use remainder to cover unfinished slopes from first [pour] and cover cracks developing in poorly cured shotcrete along uppermost right spillway." (Appeal File at 196.) The Government maintains that the contractor utilized approximately 2 CM (which equals 2.61 cubic yards, approximately) to correct problems with the initial application of shotcrete (cracking or inadequately finished surfaces). I conclude that 2.05 CM is the volume of reinforced shotcrete so used to correct unacceptable work.

25. On October 24, the contractor received a notice of non-compliance stating that concrete (although shotcrete would be the accurate word) waste and loose steel fibers need to be removed from the work area (Appeal File at 216).

Payment

26. The contractor received payment for the lump sum mobilization line item under the first and third progress payments (Appeal File at 219-20, 225-26).

27. Over the three days of shotcrete application, the batch tickets from the trucks indicate that a total volume of 67.75 CM of reinforced shotcrete was taken to the project (MF 18, 19, 23). As reflected in progress payments and contract modifications, and supported by testimony, the Government has paid for a total volume of 65.70 CM of reinforced shotcrete at the following rates:

2.5 CM	at concrete rate (\$350/CM)
13.0 CM	at a unilateral change order rate (\$492.13/CM)
50.2 CM	at shotcrete rate (\$235/CM)

(Appeal File at 101-02 (modification 4), 298-99 (modification 5), 219-27 (progress payments 1-3), unnumbered (progress payment 4), 300-01 (progress payment 5; Transcript at 102-05).) The

Government has not paid for 2.05 CM of the volume of shotcrete, as it views that amount to have been used to correct unacceptable work “applied at the contractor’s election in order to remedy noncompliant items.” (MF 24; Transcript at 103). The Government paid for the 2.5 CM of shotcrete at the contract rate for concrete under line item 602(03), as it determined that volume of shotcrete was utilized in place of concrete and form construction. The record does not demonstrate that a greater volume of shotcrete was utilized for that work. The Government paid for 13.0 CM of shotcrete as applied under contract modification 4 (MF 16). The record does not demonstrate that the contractor utilized more than 13 CM of reinforced shotcrete to accomplish this task. As with the shotcrete used for concrete, had the actual volume of shotcrete been different, one would expect the record to contain details of the area covered, both the footprint and the depth of shotcrete. Without such evidence, the 13 CM volume correctly identifies the volume of shotcrete utilized. The Government utilized the contractor’s pricing information in arriving at the \$492.13 per CM rate, when the Government determined that this work should not come under the original contract line item because it represented changed work (Transcript at 104-05). The per unit price includes payment for the shotcrete, as well as amounts derived for the pump and operator, test panel, finishing, and curing. For the pump, operator and test panel, the contractor received \$415.00 for the 13 CM; for curing \$596.44. (Appeal File at 303-04.) The record demonstrates that payment at the unit rate more than equitably compensated the contractor for its substantiated costs. The Government paid for 50.2 CM of reinforced shotcrete at the contract rate for that line item, as it concluded that the contractor had failed to demonstrate that the contractor’s costs increased because of the excess volume.

The dispute

28. In a letter dated October 10, 2000, to the contracting officer, the contractor requests additional payment under the contract. This was after the initial two-day pour, but prior to the third-day pour. Despite the batch receipts which total 56 CM, the contractor states that it had placed 58 CM of shotcrete, but that a total of 69.5 CM will be utilized. The contractor recognizes that it is obligated to supply shotcrete for the contract price for 115% of the 34 CM estimated volume (39.1 CM = 1.15 x 34); it seeks payment of an additional \$13,162.72 for 18.9 CM (58 CM - 39.1 CM), which calculates to price of \$696.44 per CM. The contractor also seeks payment of \$15,371.20, for an additional 11.5 CM of shotcrete, yet to be installed, which reflects a price of \$1,336.626 per CM. For each of the two claimed charges, the contractor has itemized, without supporting documentation, its alleged costs and calculations. The letter also raises other issues. Regarding the substitution of shotcrete for concrete, the letter states without proof or support, that the contractor would have had a profit of \$210 per CM on the concrete. In identifying “other areas to be addressed,” the letter also notes difficulties encountered in pressure washing the spillway, without attaching a dollar figure. The letter states “I was told where to wash concrete [i.e., shotcrete] trucks by inspector [and contracting officer’s representative]. Now I am told to go back and pick up steel fibers. Cost \$125.00.” Also, “Seep holes are to be drilled into shotcrete at \$25.00/hole. The item number specifications and job description do not spell out that extra work in the contract. 14 holes.” (Appeal File at 228-30.)

29. By letter dated January 29, 2001, the contracting officer denies the request for an equitable adjustment regarding shotcrete, and states that because she is unclear of the contractor’s expectations

regarding "other issues to be addressed," the contractor should review and respond with some specificity (Appeal File at 249-50).

30. In an undated letter, received by the Government on March 19, 2001, the contractor submitted what is styled a clarification of its request for an equitable pay adjustment. The contractor's request for payment for shotcrete is unchanged. The submissions add some detail to other items, including the requested payment for concrete, power washing, truck washing, and weep holes. (Appeal File at 231-35.) In seeking reimbursement for truck cleaning, the contractor states in the letter: "I was told by [the Government inspector and contracting officer's representative] where to wash concrete trucks then told to go back and pick up steel fibers. Trucks could have been washed on main road. I request additional pay of \$125.00 for labor and magnetic sweep." (Appeal File at 235.)

31. By letter dated March 28, 2001, the contracting officer responded to the clarified request for payment. The contracting officer denies the request for additional compensation for concrete and shotcrete, spillway washing, truck washing, and weep hole drilling. (Appeal File at 251-52.) On the issue of truck washing, the letter states:

Regarding your concern relating to the concrete trucks, it is true that those trucks are routinely cleaned following discharge. This is standard industry practice. The direction given by the Government was simply to clean those trucks at a location well away from the lake as per clause H.5 Landscape Preservation on page 16 of your contract. Please refer to paragraph (b) where it states specifically that "Wash water or waste from concrete or drilling operations shall not be allowed to enter live streams prior to treatment by filtration, settling, or other means sufficient to reduce the sediment content to not more than that of the stream into which it is discharged". In addition, the clause at H.9 Cleaning Up speaks very clearly to the contractors' responsibility in cleaning the work area. Any concrete left on the ground as a by-

product of the operation, should have been cleaned up and that includes the steel fibers mixed in the concrete. There will be no additional compensation for this item.

(Appeal File at 252.)

32. In a letter dated April 5, 2001, which the parties have treated as the claim underlying this appeal, the contractor provides a narrative and specific requests for payment. The contractor seeks payment for the application of 18.9 CM of shotcrete, which it views as the volume applied on the second day in addition to 115% of the 34 CM estimate in the contract. The letter states that the actual costs incurred by the contractor were \$8,346.70, to which it adds an amount for overhead, profit, and risk, for the total of \$15,829.00. For the third day of application, the contractor seeks payment for the application of an additional 11.5 CM of shotcrete. To its alleged costs of \$9,607.00 it adds overhead, profit, and risk, for the total of \$17,292.60. For the itemized costs, all which lack outside support, many reflect a per unit charge, such as the hourly charges for labor and the per unit charges for the shotcrete. Not all costs are unit priced. A shotcrete pump and operator is priced at \$875 for each event. A boom truck for the day-two pour (\$450) is compared to scaffolding for the day-three pour

(\$450) when a boom truck was not used. An air compressor and fuel is priced at \$92.50 for the day-two pour, and at \$185.00 for the day-three pour. Further, no price for curing is indicated for the day-two pour; for the day-three pour, the contractor seeks for the seven-day cure period \$610.00 for the water pump and fuel (compare MF 36, receipts show a charge of less than \$200), and \$2,450.00 for labor to operate the pump. Regarding items other than shotcrete, the letter states "concerning the washing of the spillway, your response is accepted." Regarding truck clean-up:

We cleaned the 1st truck exactly where [the Government inspector] told us to. After it was cleaned he decided the steel fibers would be a ha[z]ard to campers, so he directed us to another area. We had no problem with the new area, but I paid \$125.00 to have the 1st area cleaned up later. I would not have had to clean it up if [the Government inspector] did not tell us to wash the truck there. There was no danger of it leaking into the lake. A few days later [the Government inspector] wanted the steel fibers removed, not the hardened concrete. We did clean the 2nd area without expecting or asking for additional compensation, that was a contract requirement.

On the weep holes, the contractor stated that it was at a disadvantage because it lacked the relevant manual, and that "maybe the item was listed for pay under miscellaneous or incidentals which you would be able to show me." (Appeal File at 240-48.)

33. In a letter dated April 13, 2001, to the contracting officer, the contractor provides some narrative detail, and a statement of subcontractors utilized, with a number of hours and payment per day for September 26 and 27, and October 19, 2000 (Appeal File at 236-39, 239.1).

34. By letter dated June 22, 2001, the contractor filed an appeal with the Board based upon the deemed denial by the contracting officer, given the lack of a contracting officer decision to the letter of April 5, 2001 (MF 31) (Appeal File at 253).

35. In its supplementary brief, the contractor redefines the total amount of the claim to be \$23,073.06, as well as an amount for "risk factor, attorney fees, and interest to be determined by the" Board. For the shotcrete and concrete line items and related changes the contractor seeks to recover \$21,561.06. The contractor seeks to recover \$985.00 for the alleged high pressure washing change; \$89.00 for the alleged redirection of the clean-up area; and \$438.00 for the weep holes. (Supplementary Brief at 12).

36. The contractor presents in the supplemental appeal file a statement of costs. The document indicates that attached invoices "show the actual cost of the October delivery" to be as itemized. The stated actual costs of the October shotcrete application total \$8,390.44, to which the contractor adds a percentage for profit (\$1,258.57), and \$5,960.00 for a seven-day cure period, such that the total amount sought for application and cure is \$15,559.01. From this, the contractor deducts an amount it had received. (Supplemental Appeal File at 2.) The invoices do not support the claimed amount. For example, for the first identified subcontractor, two amounts are shown. The first amount, \$2,140.00, is supported by an invoice for shotcrete application, notated as paid on October 19, 2000. However, the second amount, \$1,140.00, is supported by a document which indicates labor hours, rates, and

totals for each of three individuals, but there is no indication that the contractor was billed or paid separately for the services. The submissions indicate hourly charges for individuals, or per unit charges, which do not vary for the three days of pour. (Supplemental Appeal File at 4-5.) However, the contractor has not referenced or attempted to explain the proposal for the shotcrete application. The proposal clearly states that the subcontractor would provide 3 men to apply and assist in troweling shotcrete on the spillway project, for approximately "60 cubic yards + or -" and that the price "is \$100.00 per cubic yard, to be paid in full on 9-27-00." "Any extra work not covered in this document will be billed at [\$50.00 per man hour--document is not clear] plus 15%." (Supplemental Appeal File at 6). As another example, the contractor includes rental costs, supported by an invoice for \$855.92 as part of the \$8,390.44 figure, and a statement. The invoice provides a breakdown of the charges: a compressor, with hoses, is charged at \$264.42; a mini-excavator is charged at \$365.50; a pump with suction hose (for use from October 18 to 26) and a rock drill and hose are charged at \$226.00. The attached statement indicates that the mini-excavator was used to relevel the area; the compressor to apply shotcrete; the pump to water the shotcrete for seven days; and the rock drill to drill weep holes. (Supplemental Appeal File at 15-16.)

37. A credible, factual basis in support of the contractor's costs due to the additional volume of reinforced shotcrete is wanting. While documents and testimony support some of the claimed costs, for some of the alleged costs, the record lacks supporting documentation or reliable testimony. There remain unexplained inconsistencies between the work done and the costs sought. Although one element of the unit costs, that relating to the cure of the shotcrete, may vary given the different volumes cured in each discrete period (because the third-day pour was not consecutive with the other pour days), the record does not reliably support the costs incurred. For example, for the cure period relating to the third-day pour, the contractor claims costs of \$2,800.00 (described as 7 days for the contractor at \$400/day) and of \$2,450.00 (described as 7 days labor). The support is the contractor's written statement "I can't find receipts for labor costs to man pump for 7 days -- much was paid with cash" and testimony that the contractor was not on the site for the full 7 days relating to the cure period (Supplemental Appeal File at 2, 14; Transcript at 64-65.) The contractor seeks a stated cost of \$610.00, attributed to "7 days water pump." The rental receipt describes a pump and hose used for this time period at a charge of less than \$200.00. (Supplemental Appeal File at 2, 15-16.)

DISCUSSION

In its brief and supplementary brief, the contractor pursues relief of \$23,073.06 (plus an amount to be determined by the Board for risk factor, attorney fees, and interest) in four areas. Regarding the shotcrete line item, the contractor seeks \$21,561.06. For what it deems a change to the high pressure washing requirements, the contractor seeks \$985.00. The contractor seeks \$89.00 for costs it attributes to a Government change in the truck clean up area. For the drilling of weep holes, the contractor seeks \$438.00. The contractor has made statements in, and attached invoices and other documents to, its supplementary brief, signed and dated with the statement that "all statements, facts and figures are true and accurate to the best of my ability. Receipts of costs enclosed." The evidentiary record does not include these statements or documents; the evidentiary record closed prior to the receipt of such proffered material (Transcript at 154).

The Government raises in its answer, and repeats in its amended answer, two affirmative defenses: (1) the contractor has failed to state a claim upon which relief may be granted, and (2) the contractor has failed to state a claim over which the Board has jurisdiction. The contractor maintains entitlement to relief under its interpretation of the contract and the facts it deems to be material. The Board has jurisdiction over a claim seeking relief under the Variation in Estimated Quantity and Changes clauses. The Government has offered no support for its affirmative defenses. The inclusion of affirmative defenses as a routine practice, when the defenses lack any credible support, is a practice which should cease.

Shotcrete

The contractor demands payment of \$21,561.06 for alleged costs it incurred in providing reinforced shotcrete under the shotcrete and concrete line items. In support of this claim item, the contractor maintains that, in addition to the unit price reimbursed by the Government under the contract, it is entitled to recover its alleged actual costs incurred (said to be \$15,978.53, including an amount for profit) for the volume of reinforced shotcrete placed on the third-day pour, in addition to an amount to be determined by the Board for the risk involved. The contractor relies upon the Variation in Estimated Quantity clause. Also, the contractor seeks additional payment under the Changes clause for the 13 CM of reinforced shotcrete added by contract modification; payment for the reinforced shotcrete placed for corrective work on the third-day pour; and, an additional payment for shotcrete placed on the second day of the initial pour.

The contractor largely misunderstands the pricing structure and risk allocation under the contract. Concrete and reinforced shotcrete are two discrete line items for payment purposes, with the methodology for payment based upon the actual quantity of the material applied. (MF 2). This methodology dictates the manner of calculating the payment to the contractor, although the work required relating to each particular line item and the contract as a whole involves many unpriced materials and actions.

For the reinforced shotcrete required for the basic work of the contract, the contract contains an estimated quantity. The contractor is obligated to supply sufficient reinforced shotcrete to complete the project. The contractor does not maintain that the Government improperly calculated the estimate, so as to relieve the contractor from its obligation to perform, or to permit reimbursement outside of the given line item. The contractor seeks relief under the Variation in Estimated Quantity clause, recognizing that the clause limits its compensation to the unit price for 115% of the estimated quantity.

Variation in Estimated Quantity

The Variation in Estimated Quantity clause dictates that an “equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity” (MF 3). As detailed in authority precedential to this Board, the clause precludes an adjustment based upon anything other than an increase or decrease in the contractor’s costs due solely to the variation in quantity. The equitable adjustment is not to be based upon the contractor’s actual costs and a reasonable profit; that is, the additional volume is not priced on a cost-

reimbursement basis. Victory Construction Co. v. United States, 510 F.2d 1379 (Ct. Cl. 1975) (“the proponent of an adjustment is told that [the adjustment] will be confined in amount to such cost differentials as are directly attributable to a volume deviation greater than 15 percent from stated contract quantities”); Foley Co. v. United States, 11 F.3d 1032, 1034-35 (Fed. Cir. 1993) (“Victory unequivocally rejects the notion that the VEQ clause permits replacement of a negotiated unit price with a complete repricing based on actual costs plus a reasonable profit”).

The contractor has received payment for 50.2 CM of reinforced shotcrete for the basic work line item at the unit price (MF 27). The contractor bears the burden of proof to recover more as an equitable adjustment under the clause. The contractor seeks to recover what it deems to be its actual costs incurred in addition to the unit price. It has structured its basis for relief and presentation of the facts on this interpretation of the contract clause. However, as noted above, the contractor relies upon a reading of the clause which is contrary to precedent. The contractor has not demonstrated (nor has it attempted to demonstrate, so as to merit a specific response from the Government) that any or all of its requested costs are due solely to the variation above 39.1 CM of reinforced shotcrete. Therefore, I deny the request for reimbursement of the contractor’s actual costs to perform.

Apart from its failure to pursue relief based on a proper interpretation of the clause, the contractor has failed to provide credible information of its costs. Many of the costs were incurred on a per unit or per hour basis (such as the material costs for shotcrete, and the nozzleman and other laborers), with the unit costs the same for the initial and subsequent pours. For these costs which do not vary, the clause permits no compensation. For the remaining costs which could vary on a per unit basis when distributed over different volumes of shotcrete (such as the extra cure period), the record contains insufficient proof of costs incurred to show any variation because of the additional volume. (MF 36, 37.) Lacking credible information for a cost comparison, together with the contractor’s failure to present an explanation for relief in accordance with the clause, this is not an appropriate case to fashion relief based upon conjectured unit costs or theories not advanced and litigated by the parties.

An independent basis exists to deny the relief. The contractor states that its nozzleman estimated that the basic contract work would require 60 cubic yards of reinforced shotcrete (MF 14), that is, approximately 46 CM of reinforced shotcrete. This figure does not represent the actual volume of reinforced shotcrete that the contractor should have anticipated utilizing. Subsequent to the estimate, but prior to the initial pour, the contractor agreed to apply 13 CM for the apron work (MF 15) and elected to utilize reinforced shotcrete for the upper layer, which amounts to approximately 3 CM for the finished surface (MF 17), and the contractor determined to use reinforced shotcrete in place of concrete or non-fiber reinforced shotcrete, for which it would use 2.5 CM on the project (MF 6, 27). Using the contractor’s own information, this anticipated a need for 64.5 CM (= 46 + 13 + 3 + 2.5) of reinforced shotcrete; this amount does not greatly vary from the 65.7 CM used on the project for other than corrective work (MF 27). The Variation in Estimated Quantity clause does not shift risks to the Government when the contractor orders what knowingly should be an insufficient quantity of material; in short, the clause cannot reasonably be interpreted to make the Government liable for the costs attributable to the extra work and effort necessitated because of a failure to order sufficient material. The contract does not state that the estimated quantity of material will suffice to perform

the project; the use of the clause anticipates that the actual quantity needed may vary by greater than 115%.

Changes clause

The contractor seeks \$1,036.69 as additional payment for the application of 13 CM of shotcrete. It identifies three components of this amount: \$360.57 for a boom truck, \$75.00 for pump truck mobilization, and \$594.12 for test panels and lab work. These three items total \$1,029.69, not the amount sought. The contractor both deems these extra expenses to have been required by the changed work and contends that they remain uncompensated despite payment for the 13 CM at \$492.13 per CM. (Supplementary Brief at 3.)

The alleged cost for the boom truck is not supported in the record. Moreover, the record demonstrates that the contractor used the boom truck for a single day, for anticipated contract work (MF 32). This item does not reflect a cost for which the contractor is entitled to additional compensation.

The alleged cost for pump truck mobilization is not supported in the record. Moreover, the per unit price paid by the Government for the 13 CM of shotcrete includes an amount for the pump and operator (MF 27). The record does not demonstrate that the contractor is entitled to greater compensation than it has received for this item.

In seeking to recover for test panels and lab work, the record does not support the costs the contractor attributes to the test panels for the 13 CM. The per unit price paid by the Government for the 13 CM of shotcrete includes an amount for a test panel (MF 27). The record does not demonstrate that the contractor is entitled to greater compensation than it has received for this item.

Shotcrete used for corrective work

The contractor seeks \$1,429.70 as compensation for reinforced shotcrete utilized but not compensated by the Government, because the Government maintains that the related volume was used to repair cracks or improperly finished surfaces (Supplementary Brief at 7). Contrary to the conclusions of the contractor, the record establishes that initially the contractor did not finish surfaces as required and did not conduct the cure process as required by the contract. The placement of the contested additional reinforced shotcrete was not a requirement of the contract; the contractor chose the method of correction. The contractor should not be compensated for its costs to perform such corrective work. Although the contract entitles the contractor to compensation at the unit price for shotcrete gunned through the nozzle, the contract specifies that "accepted work" will be paid for at the unit price (MF 8). The record demonstrates that 2.05 CM of reinforced shotcrete was utilized to perform corrective work. The corrective work was required because of the contractor's failures to finish and cure the initial pour in accordance with the terms of the contract. The contractor elected the method

of correction. The contract did not require the use of the additional shotcrete. Accordingly, the requested compensation is not warranted under the contract.

Actual costs and alleged changes

In another area of requested relief, the contractor states that if the Board rules the contractor is entitled to its actual costs instead of the quoted price for quantities over 115% of the estimate, it should receive an additional \$3,116.14 for 9.25 CM from the day-two pour (Supplementary Brief at 9). The contractor is not entitled to its actual costs for work under the shotcrete line item. The premise for compensation fails. In any event, the record fails to support the alleged volume and actual costs to perform. For the shotcrete applied, the Government has compensated the contractor under the terms of the contract and as supported by this record. The relief sought is not supported by the record.

High pressure washing

The contractor seeks to recover \$985.00 for costs relating to the high pressure washing requirement for site preparation for shotcrete. The contractor does not prevail on this issue.

This item was not part of the claim before the contracting officer underlying this dispute. The contractor had accepted the contracting officer's denial of payment and did not pursue relief in the letter of April 5, 2001 (MF 31). Because this basis for relief is not part of the appeal, I deny relief on this item.

On the merits, the contractor has failed to satisfy its burden of proof. Assertions in its supplementary brief of circumstances supporting the allegation and costs incurred do not constitute proof. On this item, the evidentiary record reveals no basis to conclude that the contractor encountered a changed condition or was required to incur costs greater than those anticipated by the contract. The contractor has not supported its allegations on entitlement or quantum with references to the record. This failure requires the denial of the request for relief on this item.

Clean up area

The contractor seeks \$89.00 for costs it attributes to a Government change in the truck clean up area. The simple assertion that the Government initially identified one area for truck washing, and later mandated that another area be utilized, thereby causing the contractor to expend unanticipated effort in clean-up, is plausible. What is lacking is a reference to the evidentiary record which credibly supports the assertion. The documents generated during contract performance and the testimony by the contractor's principal and the Government inspector do not permit me to conclude that the facts support the allegation. The single notice of noncompliance relating to truck clean-up (addressing waste and loose steel fibers) was issued on October 24, 2000, several days after all three days of shotcrete application occurred (MF 25). Other than self-serving statements, the contractor has referenced no material in the evidentiary record to support this aspect of the claim. Accordingly, I deny relief on this item.

Weep holes

The contractor now seeks reimbursement of \$438.00 for drilling weep holes through the shotcrete. In its claim to the contracting officer and its notice of appeal, the contractor seeks \$200 to drill weep holes (8 weep holes at \$25/each); the contractor maintains that it is entitled to payment because the weep holes are not listed as a line item number for payment or in the job description specifications. (Appeal File at 235, 257.) In its post-hearing submission to the Board, dated October 21, 2002, the contractor recognizes that the weep holes are noted on one drawing but states that the drawing does not spell out how many holes are to be drilled. The submission states: "I drilled 14 holes which are not in job description. The cost to me was renting an air compressor and hoses \$130.00, rock drill \$148.00, and my time \$40.00 x 4 hrs = \$160." These figures total \$438.00. (Supplementary Brief at 11.)

The contract specifies that the contractor is to drill drain holes into the shotcrete (MF 12). The contractor has not demonstrated that the number of weep holes required by the contracting officer was other than a reasonable, prudent contractor would have expected. The lump sum price of the contract required the contractor to satisfy its contractual obligations for the given price.

Further, the contractor has provided no proof of the actual number of weep holes drilled, whether 8, as initially alleged, or 14, as the contractor now contends, or some other figure. The costs now sought by the contractor are not substantiated in the record.

The contractor has failed to meet its burden of proof on both entitlement and quantum on this item of its claim. Accordingly, I deny relief on this item.

The contractor

In its supplementary brief, the contractor cites a case for the proposition that the Government has the obligation to provide reasonable estimates, and then posits: "But how does one provide a reasonable estimate when the walls and floor of the spillway to be shotcreted are extremely uneven, with voids, cracks, crevasses, and overhangs. If it was not possible for the estimator or contractor to obtain a reasonable estimate, would the Government be unfair to require the contractor to bear the cost of more shotcrete and the costs to place it?" (Supplementary Brief at 2.) Throughout this appeal, the contractor has maintained that the Government provided a reasonable estimate of 34 CM for the shotcrete. Given the site conditions, and the need for site preparation, which would change the contour of the site and could alter the amount of shotcrete to be applied, the contractor has almost answered its own question, all it needs to do is look to the contract type utilized. Payment for the shotcrete work is based upon the actual quantity of reinforced shotcrete utilized. The contract dictates the method for pricing variations in quantity. This form of contracting places various risks upon the contractor and Government. There has been no showing, much less an allegation, that the basic work required was other than as depicted, albeit utilizing a volume of reinforced shotcrete in excess of the estimate.

Further, the contractor's contention that the inspector insisted that 34 CM of reinforced shotcrete for the basic contract work would suffice or would have to suffice because of budgetary restrictions is neither credible nor relevant. The assertion is not credible because it attempts to make a pre-work estimate into something it is not. The testimony of the inspector and his actions under the contract do not suggest that, with his experience, the inspector would make such statements which defeat a substantive purpose of the contract-type utilized and could result in insufficient reinforced shotcrete to obtain a complete job. The alleged budgetary constraints are belied by the contract modifications, which increased the contract price and added work both before and after the initial pour (MF 13, 15, 16, 27).

The alleged statements of the inspector also are not relevant. Such oral statements of the inspector would not alter the written terms and conditions of the contract, which obligated the contractor to complete performance with the necessary volume of reinforced shotcrete. Moreover, the contractor says that reinforced shotcrete was ordered based upon the estimate of the nozzleman, without regard to the alleged insistence of the inspector, such that no reliance on the alleged statements occurred.

The contractor made the business decision to unbalance its unit pricing, such that its anticipated costs of performing are not reflected in its unit pricing. The contractor verified its unit price on this item prior to award. It was the contractor who opted (both intentionally and unintentionally in varying degrees) to underprice the shotcrete line item, by placing some related costs in the mobilization line item, and by failing to consider other costs it would incur. The contractor assumed a greater business risk than it understood. Such pricing is irrelevant to the analysis under the Variation in Estimated Quantity clause, because the inquiry focuses on costs to perform, not the unit price of the contract. Perhaps, this case will alert other potential contractors to a risk of underpricing a line item under a contract with a Variation in Estimated Quantity clause.

The other opinions

The majority requires the Government to pay the contractor profit on concrete work not ordered. The contractor does not pursue relief for this item. In any event, the concrete line item is to be reimbursed on an actual quantity basis (MF 5). The contractor received payment for the 2.5 CM of reinforced shotcrete to perform this line item. The contract permits the use of non-fiber reinforced shotcrete (MF 6). There is no basis to alter the actual quantity basis of payment, when the contract expressly recognizes that the contractor may opt to utilize non-reinforced shotcrete. The contractor used reinforced shotcrete. The record does not demonstrate that the volume for the non-fiber reinforced shotcrete would have been any different than the actual quantity used. Although a contractor may choose a more expensive method for performance than required by the contract, the Government is not obligated to reimburse the contractor for such costs. Given that the line item is to be reimbursed on an actual quantity basis, and that the contract permits the use of non-fiber reinforced shotcrete, no basis has been shown to reform the contract to require payment on other than the actual quantity basis.

If one views the change to reinforced shotcrete as a compensable change order variation, the record does not reliably demonstrate what the contractor's costs would have been for concrete or non-fiber

reinforced shotcrete (or the necessary volumes), or its true costs for what it utilized. The alleged profits of the contractor are speculative and not supported by the record.

For the concrete line item, the majority compels the Government to pay the contractor a total of \$2,620.33 for 2.5 CM of reinforced shotcrete, or \$1,048.13 per CM. This figure cannot be reconciled with the line item. If the work falls under the actual quantity line item, the contractor should be paid based upon the actual quantity used. The Government so paid the contractor. Otherwise, the contractor utilized zero volume of the line item, such that it should not be paid under the line item, and payment for the work should be at the rate of the similar 13 CM of change order work for similar shotcrete.

The majority finds that the inspector insisted that the contractor could perform the basic work with 34 CM of reinforced shotcrete (Finding of Fact 6). As discussed above, I find otherwise. However, given this finding of the majority, the conclusion of Judge Westbrook that the contractor was the cause of the discontinuous pour is not supported by the facts as found. The result of the factual finding is that the contractor should have reasonably anticipated completing performance with the 56 CM ordered for the initial pour; that is, the 56 CM would be sufficient to cover the 34 CM for the basic work, 13 CM for the apron work, 2.5 CM for the concrete line item, and 3 CM for the surface finishing.

Judge Pollack constructs an adjustment despite the record. The contractor bears the burden of proof to support its alleged costs. What is deemed a "lack of challenge" by the Government, is more aptly described as the Government's response to the matters asserted by the contractor. The Government did not address issues not asserted and pursued by the contractor. On their face, the calculations utilized fail to reflect that the proposed equitable adjustment is for costs due solely to the variation in quantity. Further detail is not here beneficial, as even a cursory review of the analysis reveals.

Despite the conclusion of Judge Pollack that the contractor is entitled to greater reimbursement, the analysis is incomplete to provide an equitable adjustment. The payment for the additional 13 CM of reinforced shotcrete under the change order compensated the contractor for costs which were not incurred for that material--that is, the cure period costs. The unit cost for the estimated quantity of reinforced shotcrete should have included reimbursement for one cure period. The contractor received the unit price for 50.2 CM of reinforced shotcrete, and payment for some cure costs under the change order payment for the 13 CM of reinforced shotcrete. Therefore, the contractor would be compensated for more than the two cure periods with the proposed adjustment. Also, the contractor received payment for the upper half-inch of shotcrete (3 CM). Under the contract, there was to be no separate payment for that effort, because the non-fiber reinforced shotcrete was not a separately reimbursable item. It is proper to permit a contractor to choose a more costly method of performance; it is not proper to make the Government liable for such increased costs. Thus, the proposed equitable adjustment should be modified such that the Government is not inequitably treated.

JOSEPH A. VERGILIO

Administrative Judge

Issued at Washington, D.C.

June 11, 2003